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SMALL BUSINESS ADMINISTRATION

IMPACTS ON THE

CONSTRUCTION INDUSTRY

A Special Research Problem

Presented to

The Faculty of the School of Civil Engineering
Georgia Institute of Technology

by

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In Partial Fulfillment
of the Requirements for the Degree of
Master of Science in Civil Engineering

Dedication

To Kimberly and Robyn, for their
understanding and patience.

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CHAPTER 1
INTRODUCTION, OBJECTIVES

Introduction

The idea of freedom is basic to our form of government and way of life. Our country was founded on this simple idea, our military was formed to protect it and our economy runs on the principal of free enterprise. As free elections are to our governmental system, competition is to our economy. Competition is the key to a free enterprise system. When competition is lost, the innovations, economy and incentives which competition fosters are also lost.

Competition is the key ingredient for our industrial might and the driving force in our economy. Consider for example, a company which produces an essential consumer product. Without competition, that company could indiscriminately raise prices. Any business which attempts to market a similar product would be driven out of business. Note that without competition the business no longer has an incentive to produce improved products, operate the plant efficiently, or invest in new product research. On the other hand, with competition, the business is forced to improve production techniques, utilize state of the art equipment, continuously improve its product and introduce new products

to the consumer; failure to do so would increase his competitors percent of the market. Lack of competition impacts much more than just the one company that remains in business.

In a monopoly, higher priced products would use money that would have gone to other consumer goods. Eventually, businesses not in direct competition with the monopoly would also suffer. Unemployment would be driven up, and production would decline. This is obviously an extreme case, but it serves to illustrate the effect that lack of competition could have on the national economy. The economy of our country would suffer drastically without competition, but the country's very existence would also be threatened. The United States has maintained a technological, advanced society, which enables us to maintain our political system and way of life. This is partly due to the competition among the defense contractors to develop new products. For national security, the government tries to maintain a broad range of competitors. How does this provide national security? It ensures that no one company is the producer of any essential hardware or piece of equipment; which is only guaranteed through free and open competition.

The stated goal of the government is to ensure free and open competition in the United States markets (SBA,1953). The Small Business Administration (SBA), nevertheless, tries to promote competition through restricting it, or by providing an edge to a particular segment of the industry.

Through coordinated assistance programs, the SBA designates specific items to be purchased only from small businesses. They can also award contracts to specific minority or socially disadvantaged businesses without competition, and provide guarantee loans to businesses. The Congress realizes that the United States economy is made up of a majority of small businesses which employ over 50% of the work force, and produces over 40% of the Gross National Product (GNP) (Kleppe, 1974). It is essential that these businesses survive and are able to compete with larger industry. To ensure competition, the SBA provides the previously mentioned "Set-Aside" programs for small businesses, government guaranteed loans and training programs.

Objectives

It is the purpose of this paper to explore the unique opportunities available to the small construction business owner, or prospective owner, for gaining a competitive edge over his big business rivals, and how the Small Business

Administrations policies have affected the industry by promoting new construction businesses, making capital available for the expansion of existing businesses, and providing management assistance and training.

A summary of the Small Business Act and its amendments is presented to provide some background on the authority of the Small Business Administration, its organization and objectives. A discussion of how effectively the SBA is meeting its objectives will be presented along with recommended areas of further study.

Background

Unlike many areas in the business and construction fields, the particular effects the SBA policies have had on the construction industry have not been studied. The SBA does keep records on loans approved, contracts awarded etc, yet no set procedure has been established to record the effects that the Administration's policies have on a particular industry's failures, costs or the true effectiveness of SBA programs.

Additionally, very little information has been published on construction business starts and failures. Some limited statistics on the construction industry have been compiled by

the Small Business Administration and Dun and Bradstreet Corporation, but the statistics do not address specific policy impacts.. Dun and Bradstreet is a private corporation which maintains a database of business information, including business starts, failures and incorporation. Except for the limited information provided by Dun and Bradstreet and that obtained from the Small Business Administration database, all other information was compiled from interviews, miscellaneous publications, local banks, insurance companies, and business surveys.

CHAPTER 2

HISTORY

In the beginning

At the turn of the century, the American people stood at the threshold of industrial opportunity. The industrial revolution was just reaching its top speed. As the nation stepped into the new century, new ideas in industry, technology and science were carried along.

In the few years after the turn of the century, a flood of new inventions flowed out from the small laboratories and shops across the country. Aided by a new industrial concept ... mass production, the new inventions and older essentials could be produced quicker and at less cost. Fueled by inexpensive, immigrant labor, and with an abundance of raw materials, the industrial might of this country grew at a pace never imagined.

WWI and The Great Depression

During the rebuilding period following World War I, the business growth in this country momentarily bogged down. It wasn't until the great depression struck, on October 29, 1929, that the country suffered its first serious business

crisis. In three years over 10,000 businesses failed, with a corresponding loss of over \$450,000,000 (Dun and Bradstreet, 1962).

In the years following the stock market crash, the business growth rate had not only lost momentum, it had reversed itself. During the early days of the depression financial institutions were being bankrupt along with many of the worlds industrial giants. The financial institutions could no longer meet industry's monetary needs, and they themselves were in need of assistance. It was imperative that the Federal Government step in to assist, since no other institution could fill their needs.

The Federal Government created the Reconstruction Finance Corporation (RFC), in January 1932. The RFC initially only provided financial assistance to failing lending institutions. Later, the RFC was authorized to provide loans directly, or in participation with private lending institutions, to businesses of any size.

In the period prior to World War II, many significant events took place which helped shape the economic and political development of this country.

The evolution from an agricultural nation to an industrial one required a labor force to build new factories, it also needed laborers to work in the newly constructed factories. As has been mentioned, an influx of immigrants from Europe and Asia provided the needed workers. The United States' industries and the immigrants needed each other. Without laborers in the factories no goods would be produced, alternately, without the factories, the immigrants would have no income. In fact, it was the lure of economic and political opportunity which attracted the immigrants. Although the wages paid by the factories were significantly higher than the prevailing wages in the countries the labor force came from, it was still only slightly adequate to survive on. This situation forced many children, elderly and even the sick to work long hours in poor conditions.

Working conditions were barely tolerable, with poor lighting, temperature, noise, sanitation and ventilation. Workers could not fight for better conditions without the threat of losing their jobs. The established companies grew stronger, while competitors were forced out of business.

As big business emerged, along with it came the evils of economic concentration, monopoly and oligopoly. The forces causing the businesses to prosper eventually forced the government to take a more active role in the economy. Big

government began to evolve from a laissez-faire, states rights system, to what we have today. The first attempt by the Federal Government to control the forces moving the nations industries, was the Sherman Anti-Trust Act of 1890 (Chase, 1974).

After several failed attempts at unionizing, the labor movement was able to gain some concessions from management. Changes in the political atmosphere allowed Congress to pass effective legislation aimed at regulating business. These include the child labor laws, Clayton Act, minimum wage laws and several others. These laws served to provide more humane working conditions and limited the unfair competition used by the established businesses to force competitors into bankruptcy. They thus opened the United States to the small businessman and entrepreneur.

Post WWII

After World War II, historians were able to look back at the events, which during the war, contributed to the allied army's dominance. Shortly after the attack on Pearl Harbor the Japanese must have realized the industrial might of the United States. The Japanese had apparently miscalculated the period of time it would take this country to recover from the devastation of the Pearl Harbor invasion. By the end of 1942,

the United States had achieved production rates which approached the national production capacity (Faulkner, 1968). Our country's ability to convert its industry from that of peace time production, and products, to the frenzied production of war material, was instrumental in our ability to win the war.

During the war, a large portion of the country's industrial might was made up of small businesses. Congress was concerned whether small business would be able to obtain the credit necessary to expand for war time demands. Congress was also worried, whether the economic concentrations caused by the increased demand would be disastrous for small business if government assistance was not provided. With these concerns in mind, Congress passed several pieces of legislation, the most significant of which was the Small Business Act of 1942, which created the Smaller War Plants Corporation (SWPC). The SWPC was to assist small business by making loans, certifying capacities and credit, secure contracts and subcontracts for the businesses, and lease or sell facilities and equipment to small firms. This was the first legislation enacted directly aimed at assisting small businesses, and was intended to be a temporary agency to be terminated at the end of the war.

Many other laws and programs were created during the war and shortly afterward to encourage hiring veterans, creating new businesses, and financing the war effort. One of the programs was the VA loan program; intended to provide loans to veterans for the purpose of starting or expanding a business. Because of the size and restrictive nature of the loans, virtually all of the loans went to small businesses.

The SBA

By 1952, congress had the opinion that the RFC was now unable to perform its intended function because of influence peddling and political loan making (Senate Committee on Banking and Currency, 1953). The RFC was also making loans to large businesses. By this time the RFC was so wrought with corruption, the Republican party returned to power partly on its promise to dismantle the RFC. President Eisenhower's administration initiated a study, by leading small business advocates, to determine the merits of creating a new "small business administration". This study included the review of the RFC, SWPC, VA and other programs. These initial programs were primarily for providing financial assistance to businesses, but the study committee also found that,

"At the outset it is important to recognize that financing is often not the most acute problem of small business. Lack of technical and administrative knowledge is often more of a handicap to small business than its difficulty in obtaining credit and capital (U.S. Senate, 1953)."

So, in addition to providing financial assistance to small businesses, the new administration would provide counselling, training and management assistance. Congress passed the "Title II act of 1953" (15 USC chapter 14(a)) which created the Small Business Administration (SBA), on July 27, it was signed into law on July 30, 1953. This act later became known as the "Small Business Act of 1953." Its purpose was to make money more available to small businesses and entrepreneurs having little collateral or considerable debts. The money was provided directly by the Small Business Administration performing the function of a lending institution. The SBA was also to provide technical and managerial assistance to the small firms.

The rate of failure for small businesses did change drastically after the creation of the SBA, and new business starts changed from a decreasing trend to an increasing one. It is not known if the increased business starts was due to the assistance provided by the SBA, or simply because of a better business economy.

In 1958, Congress realized the unnecessary burden and conflict with private banking companies, of having the SBA loaning money directly to small business concerns. In response, the "Small Business Investment Act" was signed into law (15 USC 14(b)). The main purpose of this act was to remove the SBA from direct involvement in loan transactions. To do this, a system of licensing new and existing finance companies as, "Small Business Finance Companies" (SBFC), was developed. The SBFC's would now be the instrument to carry out the policy of the Small Business Investment Act. In passing the Small Business Investment Act, Congress Declared the Policy to be,

"to improve and stimulate the national economy in general and the small-business segment thereof in particular by establishing a program to stimulate and supplement the flow of private equity capital and long-term loan funds which small-business concerns need for the sound financing of their business operations and for their growth, modernization, and which are not in adequate supply...(15 USC 661)."

The SBFC's were provided shared capital and were authorized to offer loans to qualified small businesses at a rate, and term, conducive to business. Loans provided by banks under this act proved to be profitable for the lender since they involved limited risk, and the terms of the loan gave the lender the first option for financing addition debt to the

small business.

The 1960's to the Present

Through the 1960's the Small Business Administration, and its guiding legislation, remained significantly unchanged, except for two major alterations: The Equal Opportunity Act of 1964 and, Executive Order No. 131971. Title IV of the Economic Opportunity Act was to provide loans to low income, socially disadvantaged individuals who could not secure credit at reasonable rates, for the purpose of establishing a small business, in high poverty, high unemployment areas (Chase, 1974). This new loan program was to be administered by the Small Business Administration. The second major event of the 1960's took place on October 13, 1971, when Executive Order No. 131971 was signed by President Nixon. This order stressed the importance of section 8(a) of the Small Business Act (15 USC 6). The executive order recognized that due to economic class, or social prejudice, entrepreneurs may not get the opportunity to start a business, or compete on an equal basis with other firms. To help remedy that problem, the Small Business Administration was to reserve contracts, that met specific criteria, for award to "socially and economically disadvantaged businesses" (15 USC 636).

After the women's movement of the early 1970's, Congress recognized that a significant portion of the U.S. economy was controlled by women owned companies. Executive Order No. 12138 was signed on May 18, 1979 by President Carter. This legislation acknowledged the increasing part women were playing in the United States economy, and recognized that women are sometimes discriminated against. It allowed the women to be recognized as socially disadvantaged, and therefore, eligible for set-aside contracts.

Many amendments to the Small Business Act and Small Business Investment Act (15 USC 14 (a) and (b)) have been passed since 1979, however, their significance when compared to those already discussed, is minor.

CHAPTER 3
THE SMALL BUSINESS ACT
AND
RELATED LEGISLATION

The Small Business Act

Due, in part, to the rate of bankruptcies among small businesses in the early 1950's, and an increasing awareness of the role of small businesses in the U. S. economy; the Congress passed the "Title II act of July 1953". This act later became known as the Small Business Act of 1953 (15 USC 631). It is this act which eventually established the Small Business Administration and set its goals:

"The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgement be assured. The preservation and expansion of such competition is basic not only to the economic well-being but to the security of this Nation. Such security and well-being cannot be realized unless the actual and potential capacity of small business is encouraged and developed. It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small-business concerns in order to preserve free competitive enterprise...to insure that a fair proportion of the total sales of Government property be made to such

enterprises...(15 USC 631)."

The Small Business Administration's creation is actually authorized under 15 USC section 633 which states,

"In order to carry out the policies of this chapter there is created an agency under the name "Small Business Administration"...under the general direction and supervision of the President and shall not be affiliated with or be within any other agency...The administration may establish such branch and regional offices ...as may be determined by the Administrator..."

In order to achieve the goals set by the Small Business Act, and its later amendments, the SBA was given the authority to carry out the intent of the legislation. Ironically, that authority includes the power to restrict competition in specific circumstances (15 USC 637(a)).

The SBA has the authority to procure services, as a prime contractor for other federal agencies, and subcontract the work to minority owned businesses. They may also restrict contracts to competition among only small businesses which meet specified criteria. Surety bonds and loans may be provided to contractors directly by the Small Business Administration, or through cooperative agreements with

qualifying lending and surety institutions¹. The Small Business Administration has also been given the responsibility of providing disaster relief to small businesses, assist agriculture related small businesses, socially disadvantaged businesses, and other businesses that are not dominant in their field.

SBA Organization

The Small Business Administration is, as has been stated earlier, a large independent government Agency directly under the Executive Branch. All of the key SBA official are appointed by the President and confirmed by the legislature. These official include the Administrator, who reports directly to the President, the Chief Counsel for Advocacy and the Inspector General. The SBA headquarters in Washington also includes the Office of Congressional and Legislative Affairs, Public Communications, Management and Administration, Comptroller, Information Resources Management, Special Programs, Business Development, Finance and Investment, Innovation Research and Technology, Procurement Assistance, Minority Small Business, Capital Ownership, International Trade, and Hearings and Appeals.

1. The Small and Disadvantaged Business (SDB) program, Small Business Set-Aside program, bonding and loan programs will be discussed in greater detail in the following chapters.

The offices of Business Development, Procurement Assistance, Minority Small Business, and Public Communications have the most direct contact with the general public. These offices are responsible for providing management assistance and counsel to small businesses, managing the contract set-aside program, Administering the Small and Disadvantaged Business program, which includes determining who is, or isn't, eligible for the program; and Public Communications office which provides the official interface between the general public and the administration. Like most Government organizations, the SBA has several levels of administration.

Under the national headquarters of the Small Business Administration, the country is broken into 13 regions, with their organizations essentially duplicating that of the Washington organization. Under each regional office, the SBA is broken into geographic districts, usually consisting of a single state or territory. These districts also have organizations similar to the parent regional office, except, the districts do not have a procurement assistance program. Procurement assistance is a national program managed at the regional level.

In addition to the regional and district offices, a Procurement Center Representative (PCR) is assigned to each major federal procurement activity. It is the PCR's responsibility to assist small businesses in locating business opportunities and, through review of purchase requirements, restrict purchases to competition among small business firms. The PCRs act as a liaison between the procurement centers and the SBA, and take the role of small business advocate at the local level.

Each office, location and level, within the Small Business Administration, works independently within its specialty (e.g. Business Development works independent of the Procurement Assistance people, within the same district and region), until a problem or specific assistance is required of another office (Parker, 1988).

Relationship with other Agencies

Since the Small Business Administration is responsible for carrying out the government's small business policies, it must be able to direct the procurement actions of the other federal agencies. The SBA obtained that authority from the Small Business Act;

"For the purpose of preserving and promoting a competitive free enterprise economic system. Congress hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practical means and to take such actions as are necessary, consistent with its needs and obligations and other essential considerations of national policy, to implement and coordinate all Federal department, agency, and instrumentality policies, programs, and activities in order to: foster the economic interests of small business; insure a competitive economic climate conducive to the development, growth and expansion of small businesses; establish incentives to assure that adequate capital and other resources at competitive prices are available to small business; reduce the concentration of economic resources and expand competition; and provide an opportunity for entrepreneurship, inventiveness, and the creation and growth of small business (15 USC 631(a))."

Through the Federal Acquisition Regulations (FAR) and related legislation, (Such as the Defense Federal Acquisition Regulations (DFAR) and Surface Transportation Act of 1982), the Small Business Administration is given specific authority to set procurement goals for each federal agency, and regulate their contracting actions within the authority of the SBA programs. The FAR reads,

"This part implements the acquisition-related sections of the Small Business Act (15 U.S.C. 631 et seq.), applicable sections of the Armed Services Procurement Act (10 U.S.C. 2301 et seq.), the Federal Property and Administrative Services Act (41 U.S.C. 252), and Executive Order 12138, May 18, 1979 (48 CFR 19.000 (a))."

The text of this legislation goes on to state that the law covers the following actions, when the contracts takes place within the United States, its territories and possessions, Puerto Rico and the Trust Territories of the Pacific Islands:

1. The determination that a concern is eligible for participation in the programs identified in this part;
2. The respective roles of executive agencies and the Small Business Administration (SBA) in implementing the programs;
3. Setting acquisitions aside for exclusive competitive participation by small business concerns;
4. The certificate of competency program;
5. The subcontracting assistance program;
6. The "8a" program¹;
7. The use of women-owned small business concerns².

In simple terms, the FAR says that any policy established for the enhancement of competition, promotion of small business, and administered by the Small Business Administration, will apply to all federal acquisitions, except at locations outside of the United States and its territories.

1. Refers to the Small and Disadvantaged Business (SDB) program, which derives its informal name from where it is found; section 8(a) of the Small Business Act. This program may also be incorrectly referred to as the Minority Business Set-Aside program.

2. The SBA no longer has a set-aside program for woman owned businesses. Woman owned businesses are no longer considered a minority and therefore, do not qualify as socially disadvantaged under the Small Business Act (Parker, 1988).

Small Business Defined

The Small Business Administration does not have a single definition of what constitutes "small", when referring to a business. In general, a small business is defined as an enterprise, "which is independently owned and operated and which is not dominant in its field of operation. In addition ...the Administrator, (The Small Business Administration) in making a detailed definition, may use these criteria, among others: Number of employees and dollar volume of business..." (15 USC 632). The SBA defines different size standards for each industry. For most industries, the size standard is based on the Standard Industrial Classifications (SIC) defined for each industry by the Department of Labor. For many industries the size standard is based on both gross revenue and employment, however, for the construction industry, the size standard is based only on gross receipts. The number of employees is a measure of the average employment over the last 12 months, including full and part time employees. The annual receipts, are defined as the average gross receipts received over the previous three years, less sales of fixed assets, transfers between affiliates and taxes remitted. All construction falls into division C of the Standard Industrial Classification system, and reproduced from (48 CFR 19.102) in table (3.1).

Construction Industry
Standard Industrial Classification Codes

SIC	DESCRIPTION	SIZE
MAJOR GROUP 15-BUILDING CONSTRUCTION-GENERAL CONTRACTORS AND OPERATIVE BUILDERS		
1521	General Contractors-Single Family Houses	\$17.00
1522	General Contractors-Residential Buildings other than Single Family.....	\$17.00
1531	Operative Builders.....	\$17.00
1541	General Contractors-Industrial Buildings and Warehouses.....	\$17.00
1542	General Contractors-Nonresidential Buildings, Other than Industrial Buildings and Warehouses.....	\$17.00
MAJOR GROUP 16-CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION-GENERAL CONTRACTORS		
1611	Highway and Street Construction.....	\$17.00
1622	Bridge, Tunnel and Elevated Highway Construction.....	\$17.00
1623	Water, Sewer, Pipe Line, Communication and Power Line Construction.....	\$17.00
1629	Heavy Construction, Except Dredging, N.E.C.....	\$17.00
1629	Dredging and Surface Cleanup Activities.....	\$ 9.50

TABLE (3.1)

Construction Industry
Standard Industrial Classification Codes

SIC	DESCRIPTION	SIZE
MAJOR GROUP 17-CONSTRUCTION-SPECIAL TRADE CONTRACTORS		
1711	Plumbing, Heating (Except Electric), and Air Conditioning.....	\$ 7.00
1721	Painting, Paper Hanging, and Decorating.....	\$ 7.00
1731	Electrical Work.....	\$ 7.00
1741	Masonry, Stone Setting, and Other Stone work.....	\$ 7.00
1743	Plastering, Drywall, Acoustical, and Insulation Work.....	\$ 7.00
1751	Carpentering.....	\$ 7.00
1752	Floor Laying and Other Floor Work.....	\$ 7.00
1761	Roofing and Sheet Metal Work.....	\$ 7.00
1771	Concrete Work.....	\$ 7.00
1781	Water Well Drilling.....	\$ 7.00
1791	Structural Steel Erection.....	\$ 7.00
1793	Glass and Glazing Work.....	\$ 7.00
1794	Excavating and Foundation Work.....	\$ 7.00
1795	Wrecking and Demolition Work.....	\$ 7.00
1796	Installation or Erection of Building Equipment, N.E.C.....	\$ 7.00
1799	Special Trade Contractors, N.E.C.....	\$ 7.00

Notes: Size standards preceded by a \$ are in millions of dollars
 N.E.C.: Not Elsewhere Classified.
 Mining and Quarrying of non-metallic minerals, except fuels, are included under major group 14.
 All SICs under this grouping, related to the construction industry, have size standards of 500 employees.

CHAPTER 4

SMALL BUSINESS SET-ASIDE PROGRAM

What is a Small Business Set-Aside

The Small Business Administration, relies to a great extent, on the small business set-aside program to accomplish its aim of assuring the preservation and expansion of small business. The set-aside program attempts to ensure small business receives its "fair proportion" of the federal procurement dollar (15 USC 631). To the knowledge of the author, none of the statutes nor procurement regulations define what is meant by "a fair proportion" of government procurement. One training manual described it as follows:

"the amount of contract awards small business would receive if all the existing techniques for aiding and assisting small business were conscientiously applied by all personnel. If all solicitations susceptible to set-aside were in fact set aside, if small businesses were solicited in every case where they had the capability, and if no technical or other barriers were improperly utilized...(NAVMAT, 1985)."

The small business administration acknowledges that there are certain contracts, which because of size, complexity, bidding climate, or other reasons; big business is not interested in competing (Pitman, 1988). The proportion of these contracts

is relatively small, and changes from day to day due to; fluctuations in the economy, the large firm's work load and, the business goals of a particular firm. The government, therefore, tries to stabilize the availability of work for the smaller firms by setting aside contracts that could be successfully competed among the smaller firms. Before we can discuss how a contract is set aside, we must first define what a Small Business Set-Aside is.

Set-Aside Defined

The latter portion of chapter 3 provided the reader with the definition of a small business, as it relates to most of the SBA legislation. Those size standards apply to firms participating in the Set-Aside program, however, some of the programs have different, specific, size limits that differ from those listed in table (3.1). One such program is the bond program presented in chapter 6.

Small business, as it relates to the Set-Aside program, has been defined, but the meaning of set-aside has not been explained. A set-aside is a contract, which because of the scope or any of a number of criteria, has been designated for award to only a qualifying small business. The contract may be designated as one of two types of set-asides; complete set-aside and partial set-aside.

The complete set-aside, as the name implies, reserves the entire contract for bidding, by small businesses. While the partial set-aside may be divided into smaller segments, and awarded as two or more contracts. In order to make a project into a partial set-aside it must first meet several conditions:

1. The contract must be separable into two or more economic production runs, lots, or complete usable facilities.
2. There must be two or more responsible small businesses who could furnish a severable portion of the contract.
3. Two or more small business offerors must bid, otherwise, a partial set-aside will not be made.

With the partial set-aside, the size of the portion of the contract set-aside, will be only large enough to make maximum use of the capacity of the small business bidding on the contract. The remainder of the project is advertised as an unrestricted contract¹, open to bidding by any size firm. Once the unrestricted segment of the contract has been awarded, the set-aside portion is priced according to the highest unit price in the non set-aside segment (NAVMAT, 1985). The number of set-aside and partial set-aside contracts awarded each year, is somewhat determined by the

1. Unrestricted competition is often referred to as full and open competition.

established agency goals, and the criteria which govern what contracts are to be set aside.

Goals

Through the passage of the Small Business Act, Congress obligated itself to ensure the country's small businesses received their "fair share" of the federal contract dollar. To do this the SBA imposed upon itself general goals to strive for. The SBA was also given the responsibility of coordinating and assisting each federal agency in establishing detailed, contracting targets. This responsibility was provided through 15 USC 644 (g), which states:

"The head of each Federal agency shall, after consultation with the Administration, establish goals for the participation by small business concerns, and by small business concerns owned and controlled by socially and economically disadvantaged individuals..."

With the enactment of the National Defense Authorization Act for 1987 (Public Law 99-661), the Department of Defense (DOD) was directed to establish a goal for fiscal years 1987-1989, of awarding 5% of all DOD procurement to small business (SBA, 1987)¹. Table (4.1) provides a breakdown, by major claimant²,

1. Fiscal Year, abbreviated FY in most federal documents, run from October first of one year through September thirtieth of the following year.

of the goals set for the Navy, by the Assistant Secretary of the Navy, for fiscal years 1987-1988 (Pyatt, 1987). Table (4.1) is a good example of the goals each of the agencies within the Federal Government must develop. It is interesting to compare the relative goals set for the various major claimants. Naval Facilities Engineering Command, responsible for shore structures acquisition and maintenance, has a goal of 75% for small business prime contracts and 56% for set-asides, while Naval Supply has 29.8% and 15.5% respectively.

2. Major claimant is the top level within a branch of a military organization having responsibility for a specialized function. For example, the Naval Facilities Engineering Command (NAVFAC), is responsible for all facility planning, programming and maintenance. Naval Supply (NAVSUP), is responsible for procurement, storage and distribution of all general commodities. The major claimant is also fiscally responsible for the subordinate commands below him.

FISCAL YEAR 1987-1989
SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
CONTRACTING GOALS

<u>ACTIVITY</u>	<u>SMALL BUSINESS PRIME CONTRACT¹</u>	<u>SMALL BUSINESS SET-ASIDE¹</u>	<u>SMALL BUSINESS SUBCONTRACT²</u>
MARINE CORPS	40.5%	23.5%	N/A
NAVFAC ³	75.0%	56.0%	55.0%
NAVAIR	1.7%	0.6%	25.7%
SPAWAR	12.5%	2.5%	N/A
NAVSEA	7.0%	4.5%	39.0%
NAVSUP	29.8%	15.5%	39.0%
ADPSO	17.0%	4.0%	N/A
JCMPO	0.4%	0.1%	N/A
SSPO	0.3%	0.1%	N/A
MSC	15.0%	6.5%	N/A
ONR	43.0%	3.6%	12.0%
TOTAL NAVY	15.2%	8.7%	30.9%

Table (4.1)

1. Presented in total dollars awarded by the Navy to United States business firms.

2. Presented by percent of total subcontractor dollars awarded by large business prime contractors on Navy contracts.

3. NAVFAC refers to the Naval Facilities Engineering Command. NAVFAC is the command within the Navy responsible for all Navy and Marine Corps construction projects and most facilities maintenance.

FISCAL YEAR 1987-1989
SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS
CONTRACTING GOALS

<u>ACTIVITY</u>	<u>SMALL DISADVANTAGED BUSINESS PRIME CONTRACT¹</u>	<u>SMALL DISADVANTAGED BUSINESS SUBCONTRACTS²</u>
MARINE CORPS	11.4%	N/A
NAVFAC ²	6.4%	26.4%
NAVAIR	0.3%	4.6%
SPAWAR	5.3%	N/A
NAVSEA	3.8%	4.5%
NAVSUP	7.7%	18.3%
ADPSO	2.9%	N/A
JCMPO	0.06%	N/A
SSPO	0.02%	N/A
MSC	0.2%	N/A
ONR	5.5%	1.2%
TOTAL NAVY	5.0%	5.0%

TABLE (4.1) Cont'd

Set-Aside Criteria

Previously in this chapter, it was mentioned that the number of contracts set aside is partially determined by the agency's small business goals. The factors which play a more important role in determining if a contract will be set aside are:

1. Estimated cost of construction.
2. Demonstrated interest in the contract by small contractors.
3. Scope and complexity of the work.
4. Competency of the bidding contractors.
5. Receipt of responsive offers.

The estimated cost of construction is undoubtedly the first criteria considered in determining if a contract will be set-aside. The laws regulating procurement by the Federal Government, until recently, set a dollar value of \$10,000 as the threshold for mandatory small business set-asides. The legislation reads as follows:

"Each contract for the procurement of goods and services which has an anticipated value of less than \$10,000 and which is subject to small purchase procedures shall be reserved exclusively for small business concerns... (15 USC 644(j))."

The threshold amount for mandatory set asides is now \$25,000 as amended by Public Law 99-661 (SBA, 1987).

Contracts between \$25,000 and \$2,000,000, are usually set-aside. It is the exception rather than the rule, not to set a contract of this dollar value aside, for a contract of this size to be solicited on a unrestricted basis, the contracting agency must provide written justification, which is subject to the concurrence of the Small Business Administration¹ (Daugherty, 1988). Contracts over \$2,000,000 are reviewed on a case by case basis for set-aside determinations. If two or more reasonable offers can be expected from small business concerns, the contract will be reserved for the set-aside program.

A contract may be set aside because a contractor has demonstrated some interest in the project. This criteria is usually more prevalent when dealing with 8(a) contracts. A contractor may demonstrate interest in several ways. He may inquire about a particular contract, either to an SBA procurement assistance official, or the contracting officer.

1. The SBA has final authority in determining both the small business size standard for a contract and the decision to set a contract aside (13 CFR 121.11, and 48 CFR 19.505). This paper presented size standards in table (3.1) for various construction related fields. The standards presented may be altered by the SBA within and among programs. For instance, different size standards exist for the set-aside program, SBA loans, and Small Business Investment Corporation.

He may include his company name on the contracting officers bidders list, or he could enroll in the SBA Procurement Automated Source System (PASS).¹

The PASS system is a computer database which lists company names, products, location and many other business statistics. The PASS database can be used much like a computerized bidders list and source guide, for determining what contracts might be interested in.

The scope and complexity of the work plays a big role in the decision to set aside a contract. The contracting officer must determine if he can reasonable expect to have two or more bidders. The complexity and extent of the work will eliminate many of the otherwise interested contractors. The complexity criteria ties closely to the fourth criteria listed. If a bid is received from a firm that has had a questionable performance history, or limited experience, the contracting officer may require a competency determination prior to awarding the contract.

The Small Business Administration is empowered, through 48 CFR 19.6, to issue Certificates of Competency (COC) to contractors who have been deemed non-responsible, by a

1. Refer to Chapter 7 and Appendix H.

contracting officer. The Certificate of Competency is a certificate,

"issued by the Small Business Administration (SBA) stating that the holder is responsible (with respect to...capability, competency, capacity, credit, integrity, perseverance and tenacity) for the purpose of receiving and performing a specific Government contract (48 CFR 19.6)."

The COC is only issued after a thorough review of the contractors past performance, financial status¹, business experience, and other areas, of concern to the contracting officer or the SBA, including personal integrity of the firms owners, managers and board of directors.

Item five in the list of set aside criteria was, receipt of responsive offers. This includes not only offers that have met the administrative requirements of the contract, such as bid bonds, timeliness etc., it also includes the bottom line cost of the bid. The contracting officer will determine a bid to be non-responsive, if it exceeds what the contracting officer determines is a fair market price².

1. The SBA will not issue a COC to contractors who exceed \$3.5 million in gross receipts or who have debt to working capital ratios in excess of 10:1.

2. Often taken as 110% of the government estimate. For military contracts awarded under the 8(a) program the Defense Acquisition Regulations (DFAR) define a reasonable price as being 10% in excess of the government estimate (DFAR 19.7000).

Contracts in excess of \$10,000 require that a small business contracting plan be submitted, and that all subcontracts include a minority subcontractor clause (15 USC 637). Failure to provide such a plan with the bid documents may also constitute a finding of non-responsiveness.

Qualification for Set-Aside Contracts

A small business may become eligible for set-aside contracts through a self-certification process. The FAR states,

"To be eligible for award as a small business, an offeror must represent in good faith that it is a small business at the time of written self certification... (48 CFR 19.301)"

The self certification's reference to, "small business," requires that the firm meet the size standards specified in the particular contract's bidding documents. To make the certification procedure simple, and encourage maximum participation in the set-aside program, the FAR requires

that the contracting officer accept the contractors self certification:

"The contracting officer shall accept an offeror's representation in a specific bid or proposal..." (48 CFR 19.301 (b))

In the event the certification is challenged, or the contracting officer has reason to question the contractors ability to perform the work, the SBA has established formal grievance procedures.

Award Priority

Set-Aside contracts are awarded to small business on a priority basis, in order to maximize the potential social benefits of government contract. The award priorities are based on price, social class of the offeror, economic condition, and unemployment rate in his primary area of operation. Assuming several bids have been received and all are found to be responsive, responsible bidders, the award will be determined by the priorities set by 15 USC 644 (e) and (f). The priorities are:

(1) small business concerns located in labor surplus areas, on the basis of total set-aside;

(2) small business concerns, on the basis of total set-aside;

(3) small business concerns located in a labor surplus area, on the basis of partial set aside;

(4) small business concerns, on the basis of partial set-aside.

Contractors not meeting the small business criteria will be awarded contracts based on total set-aside, in the order defined in 15 USC 644 (f):

(1) contractors who are not small business;

(2) and will perform a substantial proportion of the production on those contracts and subcontracts within areas of concentrated unemployment.

In addition to the Small Business Set-Aside program, the SBA has established another similar program designed primarily to assist "socially and economically disadvantaged individuals."

Chapter Summary

The Small Business Set-Aside program is the primary means by which the SBA attempts to ensure small businesses receive their "fair share" of the Federal procurement dollar. Set-Aside contracts are those which have been selected by the contracting agency, the SBA, or a particular contractor, and for which the agency believes it will receive at least two

reasonable offers from small businesses.

Small businesses become eligible for participation in the Set-Aside program through a self certification process. In this process they represent, in good faith, that they are a small business. By law, the contractor's representation, must be accepted by the contracting officer.

Through establishing small business contracting goals, each government agency ensures adequate contracts are available for small businesses to participation. The contracts will then be competitively bid, but only among small businesses, with contract awards being made according to, bid price and level of potential social or economic benefit which may result.

CHAPTER 5
THE 8(a) PROGRAM

Overview

Since the early 1940's, The Federal Government has attempted to assist disadvantaged individuals start and manage small businesses.. The principal aim of these early programs was to employ the "hard core unemployed", rather than the development of businesses among them. Even with the passage of Title IV of the Equal Economic Opportunity Act, in 1964, federal assistance was still aimed at providing loans to firms who will provide employment for "the long term unemployed (Garvin, 1974)." It wasn't until early 1969 that government assistance changed its emphasis from employing the unemployed, to developing and assisting small businesses who do business in areas of underemployment. This swing in emphasis was due principally to the efforts of the new SBA administrator, Mr. Thomas Kleppe.

At the time of Mr. Kleppe's appointment to the SBA, minorities comprised more than 17% of the nation's population, yet they owned only 3.9% of the United States businesses (Census, 1971). Of these small businesses, over 70% were located in large urban areas and accounted for only 2% of this country's small business receipts (Garvin, 1974). Under the

new administrator, revived importance was placed on the 8(a) program and its use in assisting businesses conducting work in socially and economically disadvantaged areas. The focus on economically and socially disadvantaged areas was because of the statistics previously mentioned, and a study of the Mexican-American community (Grebler, 1971). The study, was able to develop a definition, on which an entire group could be considered socially disadvantaged:

"A category of people, then, can be defined as disadvantaged if society at large has acted by omission or commission to hinder a disproportionate number of its members in the development of their individual abilities."

Mr. Kleppe set a goal for the SBA that would speed up the formation of minority owned businesses. He intended to increase the formation of minority owned business to an annual rate of 10,000 per year by June 1969 and to 20,000 the following year. This goal would be achieved by lending money through nations banks with SBA guarantees, and through management assistance provided by the SBA.

The 8(a) Program

The 8(a) program, officially known as the Small and Disadvantaged Business Program, is a social program,

"to assist small business concerns owned and

controlled by socially and economically disadvantaged persons to achieve a competitive position in the market place (NAVMAT, 1985)."

Socially and economically disadvantaged businesses are assisted through a prime contractor/subcontractor relationship with the Federal Government. The SBA receives its authority to enter into contracts with other Federal Agencies through the Small Business Act. The legislation reads:

"It shall be the duty of the Administration and it is hereby empowered, whenever it determines such action is necessary or appropriate-

(A) to enter into contracts with the United States Government and any department, agency, or officer thereof having procurement powers obligating the Administration to furnish articles, equipment,...or to perform construction work (15 USC 637)¹."

Under the 8(a) program contracts are awarded to qualifying small businesses without competition. The contractors are selected according to their capabilities and the complexity of the contract.

A majority of business failures occur during the early years of a business' life because of management and organizational problems (Dun and Bradstreet, 1984). The SBA

1. Administration refers to the Small Business Administration.

assists businesses through this rough period by providing management assistance, experience, and self confidence. In addition, the 8(a) program provides work for qualifying contractors with the potential of a reasonable profit with minimal risk.

As a precondition to receiving any management assistance, financial assistance, or participate in the 8(a) program, the contractor is required to develop a business plan¹. The business plan ensures the contractor has completely thought out what he intends to accomplish in business. Further, it proves to the lending agency and SBA that he has realistic expectations of his demand and the marketplace. The business plan is periodically referred to, and reviewed, during the 8(a) participation period.

Contractors may participate in the 8(a) program for a maximum of seven years. The clock begins ticking after the first contract is awarded to the contractor. At the start of the participation period, the contractor may be given a high percentage of Government contracts, the proportion will be

1. One of the strategies employed by the SBA, for new firms and those with limited experience, is to fill the firm's portfolio with 8(a) contracts that meet the objects of the firm's business plan. As the firms gain experience, they are encouraged to secure contracts from outside of the 8(a) program, thereby reducing their independence on the 8(a) program. (Pittman, 1988).

reduced as the contractor progresses through his business plan. If the contractor accomplishes his business plan objectives, the business plan will be revised to included higher goals, or the contractor will be "graduated" from the program.

8(a) Contract Identification

Contracts performed under the 8(a) program are selected in the same manner as those for the set-aside program. The contracts may be requested by a qualifying firm after learning of the contract, but usually, the contract is selected by the contracting agency for award through the 8(a) program. On occasion, the Procurement Center Representative (PCR)¹ will identify contracts that should be set aside or awarded through the 8(a) program. These contracts will then be brought to the contracting agency's attention. If the contracting officer concurs with the PCR's recommendation, the contracts will go to the SBA for award to qualifying subcontractors.

1. The duties of the PCR were briefly discussed in chapter 3.

Contractor Qualification

In order to receive contracts under the 8(a) program, a contractor must first be a small business. As in the set-aside program, the firm interested in receiving government contracts self certifies itself in regard to size, however, this self certification is subject to the verification of the SBA (13 CFR 121.4). The certification is also for a specific Standard Industrial Code (SIC) and contract. Each time a contractor is considered for award of another contract, his size must again be certified and verified by the SBA (13 CFR 121.4).

In addition to meeting the specified size standard a firm must be determined to be both financially and socially disadvantaged. As it relates to the 8(a) program, a socially and economically disadvantaged small business concern is a firm:

"(A) which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals; or, in the case of any publicly owned business, at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and
(B) whose management and daily business operations are controlled by one or more of such individuals (15 USC 637)."

Socially disadvantaged individuals are defined as "those who have been subjected to racial or ethnic prejudice or cultural bias..." because of their identification with a particular social group (13 CFR 121.105). The SBA determines what groups will be included in this category based on four criteria:

1. The group must have suffered the effects of discriminatory practices over which it had no control,
2. The group must have generally suffered from the prejudice or bias,
3. The existence of the conditions in items (1) and (2) above, must have resulted in economic deprivation,
4. The conditions listed in items (1) through (4) must have produced business impediments for members of the group for which they had no control, and which are not common to other small businesses in the same industry (13 CFR 124.105).

Groups included in this category are listed in 13 CFR 124.102 paragraph (b), they include: Black Americans, Hispanic Americans, American Indians, Eskimos, Native Hawaiians, Asian Pacific Americans¹.

1. Asian Pacific Americans include persons with origins from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, Laos, Cambodia, Taiwan, Northern Mariana Islands, and Trust Territory of the Pacific Islands. Other groups may be included after consideration by the SBA. Procedures for consideration are included in 13 CFR 124.105 (d).

Economically disadvantaged individuals are defined, first, as "socially disadvantaged individuals..." They must also be individuals whose ability to compete in the market place has been, "impaired due to diminished capital and credit opportunities (13 CFR 124.106)." The status of the individual or firm applying for SBA assistance is analyzed in regard to his personal financial situation, his business financial status, and access to credit and capital; before establishing his status as an economically disadvantaged individual.

The 8(a) program considers the financial status of the business owner and of the business because,

"it is not the intent of the 8(a) program to allow program participation to concerns owned and controlled by socially disadvantaged individuals who have accumulated substantial wealth, have unlimited growth potential and have not experienced or have overcome impediments to obtaining access to financing, markets and resources (13 CFR 124.107)."

Additionally, the firm being considered for a contract award must also be able to perform the contract.

"To be eligible to participate in the section 8(a) program, an otherwise eligible applicant concern must be determined to be one that with contract, financial, technical and management support will be able to successfully perform...(13 CFR 124.107)."

Lastly, the firm must also show that with continuing SBA support, the business will have a reasonable prospect for success at the end of the seven year term of 8(a) participation. So, even if a new firm hasn't had any previous contracts it may still participate in the program, if they can demonstrate a "reasonable prospect for success." A firm may be judged to have reasonable potential, if the firms principals have business experience or experience in the particular field they now intend to enter (Pittman, 1988).

Once a contractor has been qualified for participation in the 8(a) program, he becomes eligible to receive SBA subcontracts. When a contract has been referred to the SBA for contracting through the 8(a) program, the SBA attempts to match the demands of the project with the specific capabilities of a qualified contractor¹.

1. Many of the contracting officers interviewed for this paper indicated that SBA selection of contractors was an area of great concern. They felt the SBA did not review the contractors capabilities sufficiently, or did not adequately consider the administrative burden placed on the contracting officer. The GAO supports these contracting officer's opinions in its 1981 report, **The SBA 8(a) Procurement Program - A Promise Unfulfilled** (GAO, 1981). These same contracting officers indicated they seldom have termination or default problems with 8(a) contractors.

Contractor Selection

The contractors considered for award of a contract must first be classified as small business under the SIC code for that particular contract. A review of the firms financial data, experience and business plan, is then undertaken by the SBA. The SBA attempts to match the contract and contractor to try to compliment the firms business plan.

The contractors ability to be bonded is important in many instances, so along with looking at the ability of the firm to finance and manage the project, the SBA also reviews the firms bonding capacity. In special instances, if the firm cannot be bonded, the SBA can waive that requirement.

"no small business concern shall be required to provide any amount of any bond as a condition of receiving any subcontract...if the Administrator determined that such amount is inappropriate for such concern in performing such contract (15 USC 637(2))."

The requirement for bonds may only be waived if:

1. The SBA takes appropriate measures to protect material suppliers and persons providing labor to the firm receiving SBA assistance,
2. The SBA assists a small business receiving 8(a) benefits, to develop financial and other capabilities as necessary to receive the required bonding,

3. No surety firm will issue the required bonds even with the Title IV guarantee¹, or

4. The firm is a start up firm and has not been conducting business under the 8(a) program for more than one year (15 USC 637 (4)).

In addition to the qualification criteria already outlined, for construction contracts, the contractor receiving the award must have its principal place of business within the administrative region of the SBA office giving the award (15 USC 637).

Contract Award

After the contractor is chosen, both the contractor and contracting officer are notified of the selection. Barring any grievances, the contract price will be negotiated and the contract awarded to the selected subcontractor.

The Small Business Administration is directed by 15 USC 637, as to what methods will be employed for awarding contracts to small businesses. Under part (c) of the same

1. Title IV refers to the Loan and Surety bond program of the Small Business Act. This program is outlined in chapter 6 of this paper.

legislation, the SBA is authorized to,

"...arrange for the performance of such procurement contracts by negotiating or otherwise letting subcontracts to socially and economically disadvantaged small business concerns¹..."

The negotiations are performed by Members of the Minority Small Business and Capital Ownership Development (MSBCOD) staff on behalf of the small business receiving the award². The contractor will be present during the initial negotiation, but usually does not actively participate until later negotiations. The aim of the negotiation is to settle on a mutually agreeable price, that, additionally, is fair and reasonable. For all Federal 8(a) acquisitions, a price within ten percent of the Government estimate is considered fair and reasonable (FAR 19.806-2).

As has already been mentioned, the SBA may take on several roles in addition to that of the prime contractor. During the life of the contract the SBA, for brief periods,

1. Note that the authorization is only to socially and economically disadvantaged small businesses.

2. Although the SBA is performing the function of a prime contractor, the negotiation is carried out between the contracting agency and the SBA, yet it is the subcontractors price that is negotiated. The contractual parties in the negotiation are not the SBA and the contracting agency, they are the SBA and the subcontractor.

may assume the role of a contract administrator or project manager. Each of these contracting functions could be accomplished using any of the numerous resources available to the SBA. The extent to which the SBA will perform these functions, or the method employed, largely depends on the particular contract, capability of the contractor, difficulties the contractor is experiencing, and extent of time the contractor has been in the 8(a) program. Unlike the usual Prime/Sub contractor relationship, the SBA becomes directly involved in the subcontractors operation when difficulties are experienced, hence, the multiple roles of the SBA. One must understand, the ultimate objective of the Small Business Administration is to assist small businesses. This objective is pursued by the SBA, regardless of the contractual relationship with the Government.

In almost any other agency, a multiple contracting role, such as the SBA's would undoubtedly be considered a conflict of interest. Yet, it is the "duty" of the SBA to receive contracts from other agencies and award them to private contractors, without competition. At the same time the SBA must ensure the contractor profits from the contract, and still the Government must receive the work for a fair and reasonable price. In addition, if the contractor has difficulty on the contract, the SBA will provide management assistance and even direct management of the work if

necessary. All of these topics will be discussed in more detail later in this chapter and in succeeding chapters.

CHAPTER 6

CONSTRUCTION RELATED LOANS AND BONDING

The SBA Guarantee Loan and Direct Loan

The Small Business Administration is given authority through 15 USC 636, to issue loans,

"to the extent and in such amounts as provided in advance in appropriation acts...for plant acquisition, construction, conversion or expansion...to any qualified business concern (15 USC 636)".

The same section of the law goes on to state that the loans,

"may be made either directly or in cooperation with banks or other financial institutions through agreements to participate on an immediate or deferred (guaranteed) basis...(15 USC 636)"

In simpler terms, the SBA is allowed to provide financing through direct loans, from the Small Business Administration, or through guaranteed loans from private lenders. Both types of loans are very similar, except with respect to the availability and extent of financing.

Comparison of SBA Guaranteed and Direct Loans

The amount of money available for direct loans is dictated by the amount appropriated by congress, consequently, it is not always available. The SBA attempts to assist more businesses with the amounts appropriated by limiting the size of the direct loans to less than \$150,000. Additionally, during periods of short money supply, additional restrictions may be imposed. For instance, at the time of the writing of this paper, direct loans were restricted to Vietnam era veterans, disabled veterans and handicapped individuals, or firms owned by or employing handicapped workers. One last pre-condition; before a firm can apply for a direct SBA loan, it must first show that it was turned down by two lending institutions (15 USC 636)¹. Except for these few restrictions, the SBA guarantee loan and the SBA direct loan are identical.

Application and Qualification

For a firm to qualify for either of the SBA sponsored loans, the firm must first be a qualified small business. For the purposes of the loan programs; a qualified business is any

1. This restriction applies when the applicant is applying in a locality of 200,000 people or more. Its justification is so that the SBA is sure that it is not in direct competition with private lenders (Merriday, 1988).

business operated for profit, that meets the size standard discussed in chapter 3, and, who is not dominant in its field. The business however, cannot be one that is, "involved in the creation or distribution of ideas or opinions (SBA, 1987)." Businesses that would fall into this category include non-profit organizations, newspapers, magazines, schools that teach "academic subjects," and broadcasters. Other restrictions include loans to other lending institutions and loans for the purpose of financing real property for investment.

The loan applicant must be able to meet the same credit requirements of a regular commercial loan¹. In fact, the bank processing the loan application has the first option to finance the loan, it therefore, will have the same credit requirements for the SBA loan. The credit requirements are set by the particular bank processing the loan. The SBA takes

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1. The SBA lists five general pre-qualification requirements:
 1. Be of good character.
 2. Show ability to operate a small business.
 3. Have sufficient capital in an existing firm so that the applicant can operate successfully.
 4. Show past earnings or projected prospects of the firm which indicate ability to repay the loan and other fixed debt.
 5. Have a reasonable amount of personal capital available in order to withstand possible losses, if the venture is a new business.

In addition to these, a reasonable, detailed business plan is required for approval of direct SBA financing (SBA Loans, 1988).

the position that it is new in the banking business, the firms that are processing the guaranteed loans have more experience and have more at stake than the SBA, they therefore, are more qualified to set the lending criteria. Further, the bank is in business to make money, they must then be more responsible for the loans approved (Merriday, 1988). If a loan is turned down by the processing bank, the applicant can request that the loan be processed for an SBA guaranteed loan. Loans will only be guaranteed by the SBA if the applicant is first turned down by the lending institution. If the bank elects to participate in the program, and is willing to finance the loan with an SBA guarantee, then the application is forwarded to the SBA for approval¹.

Commercial lending institutions may deny a loan for any reason without having to be held accountable for their decision. The Small Business Administration on the other hand, is an arm of the Government, accountable to Congress, the President and the people. For this reason, when applications are received, for either a direct or a guaranteed loan, the SBA must completely review:

- a. business experience,
- b. formal education,

1. Through participation in the FDIC and FSLIC system, all banks are eligible to take part in the Federal loan programs, however, some banks elect not to process VA or SBA loans.

- c. potential market,
- d. credit history of the firm and principals,
- e. size of loan,
- f. management capability,
- g. business plan,

and other pertinent information relative to the business, the loan, or the market the firm is entering.

Loan Terms

As has been explained in the previous section, SBA loans and SBA guaranteed loans go through the same, or more rigid scrutiny than a commercial loan. Part of the reason for this is to help ensure that the SBA is not in direct competition with private lending institutions. To eliminate direct competition, the SBA has stipulated that they will not back a loan unless the local banks have already denied it. In addition, the rates for SBA loans are usually higher than those available commercially. However, the laws do restrict the rate that can be charged by tying it to the prime lending rate:

"The rate of interest on financing made...shall not exceed a rate prescribed by the Administration, and the rate of interest for the Administration's share...shall not exceed the current average market yield on outstanding marketable obligations of the United States (15 USC 636)."

The rates presently "prescribed" by the Small Business Administration are 2.25% and 2.75% above the prime lending rate, for terms up to seven years and over seven years, respectively^{1,2}. These rates are the maximums that may be charged, with rates adjusted quarterly (except on direct government loans). A financial institution may extend SBA guaranteed loans at lower rates, depending upon the business prospects presented. The SBA charges 2% of the guaranteed portion of the loan as a guarantee fee. The 2% is in addition to the lending institutions interest rate.

Guaranteed portions of loans run from 85% to 90% of the loaned amount, depending on the size of the loan. The SBA will guarantee 90% for loans up to \$150,000. Loans between \$150,000 and \$500,000 will be guaranteed at 85%. No loans in excess of \$500,000 will be approved. As stated earlier,

1. The maximum term for an SBA direct or guaranteed loan is 25 years. Terms of this length are only for construction, renovation or major alterations. The law also states that the term may be extended to the estimated completion date of the alterations (15 USC 636).

2. The prime lending rate is taken as the minimum New York prime rate published in the Wall Street Journal on the date the application is received (SBA Loan, 1988).

direct loans are limited to \$150,000¹.

In addition to the SBA guarantee, the lending institution is required by the SBA, to have the loans collateralized, "or so secured as reasonably to assure repayment (15 USC 636)." The SBA also requires that start-up businesses owners, provide 25% to 30% of the business' capital requirements, before the SBA loans will be approved. This provides an added measure of security to the loan, making the SBA guarantee program more attractive to the lender.

Uses of SBA Loans

The SBA backed loan, or direct loan, may be used for almost any normal business function, however, the SBA does reserve the right to refuse the loan, "if it determines that the loan will not benefit the small business concern (15 USC 636)." The legislation specifically states that the loans may also be used for the finance of,

"residential or commercial construction or rehabilitation for sale: Provided, however, That such loans shall not be used primarily for the acquisition of land (15 USC 636)."

1. In the event a lender decides to request the guarantee, the SBA will take over the loan. In this case, the SBA is allowed to service the loan regardless of the dollar amount. (Merriday, 1988).

Additionally, the legislation does not rule out the use of these loans for the purpose of refinancing existing debt, unless it is simply to prevent a loss to a present lending institution. SBA backed loans may also be used for financing employee trusts, formed for the purpose of taking over an existing small business. The trust must have sufficient capital to obtain 51% of the company stocks and these stocks must be owned by at least 51% of the trust members (15 USC 636).

The SBA Small General Contractor Loan

Probably the biggest problem facing construction contractors is, maintaining a positive cash flow. Many research papers have been written on this topic, even entire books have been dedicated to the subject. Construction firms often have difficulty financing the early stages of a construction project due to high capital outlays for materials, and wages. The problem with cash out-flow is further compounded by little or no income in the early phases of the contract. Slight miscalculations, or delayed progress, could be catastrophic for small firms with limited working capital. The construction industry is very volatile, and has a high degree of inherent risk, consequently, banks usually are unwilling to make loans to small construction contractors (Merriday, 1988). To assist small construction firms through

the lean period at the start of construction, the Small Business Administration has developed a Small General Contractor Loan Program.

The Small General Contractor Loan provides working capital to qualified construction contractors for the purpose of project financing, or expanding their existing facilities. This type of loan is provided through a cooperating local lending institution, and is 100% guaranteed by the Small Business Administration.

To qualify for the loan, the contractor must be able to prove that he has been unable to secure a loan from another lender in the vicinity. The SBA does not set any qualification restrictions for this loan, except that the firm be a small construction business, and that the loan be used to cover only direct contract costs. It is also stipulated that the loan not be used for the improvement of certain types of establishments, or for the purchase or improvement of resale property¹.

1. Establishments that cannot be financed with a Small General Contractor Loan include gambling casinos, areas of illegal commerce and trade etc.

The terms of the Small General Contractor Loans are set by the lending institutions, but usually are for a term equal to the contract period. The interest rates charged for these loans are usually slightly higher than regular commercial loans, but the rate is capped at 2.75% over the prime rate. Also, the contractor is limited to one loan per contract, but may receive any number of loans up to a total of \$500,000.

In the event the contractor is unable to repay the loan, the lending institution may elect to try to recover the balance, liquidate the collateral (i.e. place a lean on the project), or recover the SBA guarantee. In fact, at any time during the term of the loan, the lending institution may request that the SBA take over the loan, and honor its guarantee.

SBA Bonding

Most commercial surety companies prefer to restrict their business to large construction firms, having business volumes in excess of \$20 million, and net worth in excess of \$40 million (Merriday, 1988). Construction firms that fall within this financial category present a reduced risk of default, and a higher business volume for the surety company. As a consequence, it is often difficult for smaller firms, particularly new businesses, to receive bid, payment and

performance bonds. Unfortunately, all Federal contracts in excess of \$25,000 and most large private contracts require bonding.

To overcome the bond restriction, the SBA developed the Bond Program in 1970. The law states:

"The Administration may...upon such terms and conditions as it may prescribe, guarantee and enter into commitments to guarantee any surety against loss, as hereinafter provided, as the result of the breach of the terms of a bid bonds, payment bond, or performance bond by a principal on any contract up to \$1,000,000¹ (13 CFR 694(b))."

As with all of the SBA programs, the recipient of the bond must be a qualifying small business, however, the size limit for the bond program is much smaller than for most of the other SBA programs. A company requesting an SBA backed bond cannot exceed \$3.5 million gross per year, for the three previous years².

Bond Qualifications

1. The value of the contract limit was recently amended to \$1,250,000.

2. For new firms, the first year projected gross receipts cannot exceed the \$3.5 million limit.

As with SBA backed loans, the commercial surety firm which the contractor is applying through, has the first option on providing the requested surety. Only after the commercial firm has refused to provide the bond, can it be backed by the SBA. If the surety company decides that it will issue the bond with an SBA guarantee; in addition to the size limit mentioned above, the firm applying for a bond must also meet several additional prerequisites:

1. The bond must be a requirement of the contract and is needed for a contractor to bid on the contract, or to serve as the prime contractor,
2. The firm is unable to receive a bond at reasonable terms and conditions without a guarantee by the SBA,
3. The Administration determines that there is a reasonable expectation that the contractor will perform the contract,
4. The contract meets the Administrations requirements for feasibility and reasonableness of cost, and
5. The conditions of the bond and fees assessed are reasonable in light of the contract risks and requirements (13 CFR 115.1)

If all of the listed preconditions are met, the application would then be reviewed by the SBA using essentially the same criteria, and scrutiny, as for loan applications (Merriday, 1988). The applicant's credit history, business experience, education, expertise, and financial status will be reviewed. Firms who recently received SBA backed bonds, may not be reviewed again, provided the contract, for which he now

requires a bond, is of similar nature and size(Merriday, 1988)¹.

The SBA guaranteed bond program was created to make bonds available to small contractors. To do this, a number of the qualification requirements used by commercial surety companies needed to be relaxed. Unlike the requirements for commercial bonds, the SBA backed bond, only requires an equity to working capital ratio of 10:1; roughly one fourth of that required for commercial bonds. Further, existing firms need only show a profit over the last three years, as apposed to five for the commercial bonds. These differences, along with the 80% Government guarantee², allows the participating surety company to issue bonds to smaller contractors.

Unlike the loan programs, the surety company does not have the option of relinquishing its bond to the SBA. In fact, in the event the contractor fails to perform in accordance with the contract, the surety is responsible for resolving the claim against the bond. Only after the issues have been resolved will the SBA honor the guarantee.

1. Similar size limits were described to the author, to be not more than 200% of the previous dollar value.

2. The SBA is authorized by 13 CFR 115.1 to guarantee up to 90% of the bond amount, however, the SBA policy is presently to guarantee only up to 80%.

Conditions and Cost

Although the SBA places several conditions on the contract size a firm may receive bonding for, the SBA places no limit on the number of SBA bonds issued at any one time. Since the firm's expertise, work capacity, and equity/working capital ratio, is checked by the issuing bonding agency, there is no need for the SBA to place a limit on the number bonds held by a company.

A firm will most likely limit the number of SBA bonds it holds because of the cost of the bonds. Again, the SBA cannot be in competition with private firms, and to make it attractive for commercial sureties to offer SBA bonds, the charge for them must be attractive to the bonding company. The legislation authorizing the guarantee of bonds states,

"The Administration shall administer this program on a prudent and economically justifiable basis and shall fix a uniform annual fee which it deems reasonable and necessary for any guarantee issued...to pay administrative expenses incurred... (13 CFR 115.1)"

The present rate charged for the SBA guarantee is \$6 per thousand dollars of bond value, which is intended to cover the

administrative cost of the bond processing¹. This rate is over and above the commercial bond price, which cannot exceed \$18 per thousand. So, an SBA guaranteed bond may cost up to \$24 per thousand dollars of contract value, as apposed to \$18 or less for a commercial loan.

In addition to the loan and bond programs discussed above, the SBA has several specialty loan programs and general business assistance programs. For the sake of completeness, these additional programs will be discussed briefly in the next chapter.

1. The processing fees collected are credited to a fund set up exclusively for bond underwriting. The amount in the fund is presently set at \$35,000,000 by 13 CFR 115.1

CHAPTER 7

SPECIAL LOAN AND BUSINESS ASSISTANCE PROGRAMS

Discussion

Chapter 2, discussed the history of small business assistance programs, but a few points are worth reiterating. As early as 1935 the Government recognized that small businesses suffered because of a lack of adequate long term, and equity financing. A gap existed in the structure of the nations financing institutions which made it difficult for small businesses to receive long and short term debt, investment, and equity capital. To fill this gap, and provide management assistance to the small firms, the Small Business Act of 1953, and the Small Business Investment Act of 1958 were passed.

The Small Business Investment Act of 1958 created the Small Business Investment Companies (SBICs), which were created specifically for providing long term equity and risk capital to small business entrepreneurs. The SBICs were intended to fill the portion of the gap not addressed by the creation of the Small Business Administration.

The Small Business Act created the SBA and empowered it to make loans, "to the extent and in such amounts as provided in advance in appropriation acts...for plant acquisition, construction, conversion or expansion...(15 USC 636)". It did not, however, provide risk capital or equity capital for the small business community, hence the need for the Small Business Investment Company.

Many new assistance programs have been created by the SBA since the start of the Small Business Investment Companies, but the Small Business Administration's loan and bonding programs are undoubtedly the most well known and widely used. Four key factors play a major role in this popularity. First, the programs are among the least restricted of all of the SBA's direct assistance programs, and hence, are available to a wider range of businesses and business owners. Secondly, they are not restricted to utilization by contractors doing business with the Federal Government. All of the programs discussed to this point restricted participation to firms doing business with the Federal Government. It was only after establishing a business relationship with the government that the firm became eligible for any of the programs. Participation in any particular program was then, further restricted by economic factors, race, or social status. Third, These two programs are not directly administered by the Small Business Administration. Both programs are administered

and managed on a daily basis by private lending and surety institutions, providing a broader coverage area from which individuals can be exposed to the programs. Lastly, the programs do not depend on public awareness of them for utilization. Banks and surety companies are the only institutions who must be aware of the programs. It is the loan or surety company who decides whether to use the SBA guaranteed loan or bond, not the applicant. In addition to these two well known programs, which were discussed in the last chapter, the SBA has a number of loan and management programs that are not as well publicized.

Loan Programs

The Small Business Administration offers eleven loan programs to the community, businesses, and entrepreneurs. The loans are available for disaster recovery to capital investments and equity capital for risk investment. Each loan program has rates and terms which are commensurate with the risk, potential return, and monetary value involved. Usually these rates are slightly higher than commercial loans and are limited in the amount of capital available.

By involving private investment companies in business development, the SBA is able to limit the impact its funding shortfalls have on the business development programs it

sponsors. One such program is the Small Business Investment Company¹. The SBICs are privately owned and operated, profit making, investment firms that are privately capitalized. The SBA only provides leverage capital, licenses and regulates them. Since the SBICs are to be profit making organizations, the board of directors determines qualification criteria and Loan terms.

It is primarily through the SBICs, that the SBA makes venture capital available to small business entrepreneurs. Capital is made available in two ways; conventional loans, and equity loans. Because the SBIC's are looking for a high return on a limited number of investments, loans are usually in large sums and at rates slightly higher than conventional loans, (Merriday, 1988). The SBIC will provide equity loans when it feels the applicant has a better than average chance for significant profit. In this case, the SBIC assistance is limited to less than a controlling interest in the firm.

A program very similar to the SBIC program is the Local Development Company program. A Local Development Company is an organization of local businessmen and political leaders who have formed a corporation to promote the development, or

1. The SBA also has a Minority Enterprise Small Business Investment Company (MESBIC) which is limited to assisting social and economically disadvantaged businesses.

improvement, of a specific locality. This program combines local investments with SBA grants. Through local lending institutions, area businesses may receive loans. 40% of the sum loaned by the bank is then matched by the SBA. These loans may be used for plant acquisition, construction, conversion, expansion, land acquisition or machinery and equipment purchases. In the event the construction or equipment acquisition is for pollution control devices, the SBA has a special program to assist small businesses in this area.

In cooperation with: financial institutions, the Federal Government, State and Local agencies, the SBA provides financial assistance to small firms for the purpose of planning, design and construction of government mandated pollution control facilities. Under this program loans may be long term, and up to \$500,000. Pollution Control Loans are 100% guaranteed by the SBA. Only businesses that are at an operational or financial disadvantage with respect to similar businesses, are eligible for these loans. Eligibility determinations are made by the SBA Pollution Control Financing staff in Washington, D.C. (SBA OPC-2, 1987).

Homes and businesses may be damaged by hurricanes, floods, tornados and other natural disasters. Catastrophic damage causes hardship and economic losses for individuals and

the community. When the President or the Administrator of the Small Business Administration, declares an area to be a disaster, the SBA may assist the affected communities with two types of loans: the Physical Disaster Loan, and the Economic Injury Disaster Loan.

The Physical Disaster Loans are made to homeowners, renters, businesses (large and small), and nonprofit organizations, for the repair or replacement of their property and businesses. Disaster loans will usually be provided by a commercial bank, with the SBA providing an 80% guarantee. The amount loaned cannot exceed the replacement or repair cost of the property, and is only provided when the property is not insured.

The Economic Injury Disaster Loan is strictly to assist small businesses in declared disaster areas. The small businesses must have suffered substantial economic losses, due to a disaster, before they are considered eligible for the loans. Loans issued under this program may be used for working capital, and to pay financial obligations which could have been met had the disaster not occurred.

Three additional small business loan programs are the Energy Loan, Handicapped Assistance Loans and Seasonal Line of Credit Loan.

The Energy Loan program attempts to promote competition in the alternative energy and energy conservation fields, by offering credit to small firms engaged in the development, manufacture, marketing, service, installation or maintenance of energy conservation equipment.

Handicap loans help small firms that are owned by or employ handicapped individuals. The loans may be used for renovating the facilities to accommodate handicapped individuals or for general business needs.

Lastly, the Seasonal Line of Credit loan provides working capital to retailers who are engaged in highly seasonal sales. The line of credit provides money for the purchase and restocking of seasonal commodities.

Business Development and Management Programs

In addition to the programs directly supported, managed and funded by the Small Business Administration, there are several resources available to small business firms, that work in partnership with the SBA. These resources include the Senior Corps of Retired Executives (SCORE), Small Business Development Centers (SBDC), and Small Business Institutes (SBI). Each of these organizations provide an array of

services from general business counselling, to researching specific production problems. The services are completely free to the small businessman.

SCORE

SCORE is an independent counselling organization working in partnership with the Small Business Administration, to provide advise and counselling assistance to small business managers. It has 388 chapters throughout the country, with over 12,500 counsellors and an additional 400 satellite chapters.

The SCORE counsellors are retired executives, who give of their time and expertise, to provide counselling services to businesses experiencing problems, doing well and want to expand, or to entrepreneurs who are considering going into business. The counsellors expertise covers all facets of business in most industries, so when a request for counselling is received, SCORE attempts to match the problem and firm, with a counsellor familiar with that difficulty in the specific industry.

The SCORE organization provides classroom training, seminars and workshops at a minimal cost, in various locations throughout the SBA region. These training workshops are open

to individuals, and business persons regardless of the size of the company. If enough interest is expressed, special training seminars and workshops can be scheduled, and are usually open to the general public. Appendix H provides samples of the types of seminars offered, and typical workshop and training schedules.

Assistance with many of the SBA forms and application procedure may be received from the SCORE counsellors. This service could include development, and updating of business plans, review of loan requirements¹, or referral to other SBA programs.

SCORE also serves as a clearing house for the SBA and SCORE studies. Samples of fact sheets, management assistance and training documents, are included in appendix H.

Small Business Development Centers

The Small Business Development Centers are located at many colleges and universities across the country. They are usually staffed by senior management students, and supervised by a management faculty member. The SBDCs provide many of

1. Often new business owners will apply for loans only to be turned down by the bank. The score counsellors will assist in evaluating what capital is actually needed or suggesting alternatives to debt capital.

the same counselling services as the SCORE organization, however, this program also provides hands on experience for the students. It has the added advantage of having the university's resources available for research and field studies.

The SBDCs are funded by grants from Congress, and so, the services provided like the SCORE counselling, is free. When a firm experiences a problem which is common within an industry, or demonstrates a salient point, copies of the counselling notes will be published and distributed to the SBA and SCORE office. Copies of construction related "Counselling Notes" are also included in Appendix H.

Small Business Institutes

Small Business Institutes are also located at the major universities and colleges. The SBIs primarily provide investigative and technical research services to small businesses. The SBIs are provided, not only the research facilities at the particular university, but also the entire research capability of the Federal Government. Small businesses, through the Small Business Institutes, are given access to the research facilities of the National Science Foundation, National Aeronautics and Space Administration, Department of Defence and others (15 USC 648). These services

are again provided free of cost.

CHAPTER 8

SBA EVALUATION SYSTEM

Goals and Evaluation

Recall from chapter 3, that the intent of the Small business act was to, "aid, counsel, assist and protect...the interests of small business (15 USC 631)." The SBA, through its relationship with other government agencies, was given the responsibility to create a business atmosphere which would: foster the economic interests of small business, insure a competitive economic climate, ensure that adequate capital is available to the small businesses at reasonable rates, and provide an opportunity for entrepreneurship and inventiveness. Probably the greatest difficulty which the SBA, and the author faced in researching this paper, is; how does one measure and monitor the performance of the SBA, in its effort to achieve these goals?

Scarcity of Data

Although the Federal Government is known for its extensive paperwork and records, surprisingly little is available specifically on the construction industry^{1,2}. This

1. The Department of Defense spends approximately 80% of the Federal Budget, and it is estimated that 960 million hours were spent processing procurement paperwork during fiscal year

fact is especially surprising when one considers the proportion of the Federal Budget devoted to this industry. In 1983 roughly 32% of the Federal Budget went to construction and maintenance of Federal facilities (SBA, 1984).

The need for a business database was recognized by the Congress in 1976, when it directed the SBA to establish a Small Business Database (SBDB). This database combined several existing data files, from various private and government agencies. The SBDB now contains over 8.1 million establishment records, on a high percentage of non-farm related industries. This system first came on line in 1979. Although capable of providing detailed business data, it is often too limited for detailed industry analysis.

Specific industry data may be obtained from the Dun and Bradstreet Corporation (D&B), and was utilized by the author. Information from this source included the Business failure and start trends. Again, however, the information is limited. The failure rate data provided by D&B was quite extensive and extended well before the establishment of the Small Business

1983. In response to the paperwork, private contractors spent an additional 330 million hours preparing responses, at an estimated cost of \$3.2 billion (SBA, 1984).

2. A construction industry data base is now being developed by Dr. Wentworth of the Indiana University, in conjunction with the U. S. Census Bureau.

Administration, however, the business start record was begun only in 1985, and was therefore, of little analytical value.

Through a number of discussions with SBA officials, professors, and businessmen, two additional sources for business failure and start data were investigated: the IRS Statistics of Income (SOI) database, and the court system records. The data provided by the IRS would have proved to be prohibitively expensive to search and of limited value. Essentially, all the SOI could provide is the number of construction firms in the United States, and their income. Although no direct count of starts or failures could be obtained, the number of large and small construction businesses could have been derived from this database, by applying the SBA size standards. The second possible source of business failure data, the court system, could have potentially yielded significant data, however, all of the records are filed by case number and not cross-referenced to subject data. This file system would then require a line by line search of the court records; an unrealistic undertaking.

Available Data

Significant difficulties were encountered finding data specific to the construction industry, and particularly to

small construction firms. Eventually several Congressional hearing reports, internal SBA documents, General Accounting Office investigations, census data and several other sources were identified. These documents, combined with the SBA annual reports, Dun and Bradstreet information and US Navy records, formed the basis of this report.

SBA Reporting System

The key to success for any long term project, is the ability to monitor progress, and the timely receipt of information on which decisions can be made. Public Law 93-400 required the Office of Management and Budget to "establish a system for collecting, developing and disseminating procurement data..." In 1978, the Department of Defense, acting as executive agent for the Office of Management and Budget, developed the Federal Procurement Data Center (FPDC). The responsibility for this reporting system was then transferred to the General Services Administration in 1980.

The Federal Procurement Data System (FPDS) provides a central reporting point for all Federal Procurement Actions. Not until the FPDS was developed were federal procurement actions reported to a central location in a standard format. The FPDS allows Federal procurement actions to be analyzed by region, cost, industry, market, and as an indicator of

regional or socio-economic distress. The FPDS is also used by the legislative and executive branches of government, for analysis of Federal Procurement policy impacts.

The data available to the SBA, through the FPDS and SBDB is updated on a continuous basis. However, analysis based on these inputs is only as accurate as the data imputed. Each of the data bases utilized by the SBA have shortcomings and limitations.

Limitations of SBA Data

The Federal Procurement Data System has several limitations which affect the analyses performed by the SBA. The major limitations are discussed below.

The first limitation of the FPDS is that only contract actions over \$25,000 are reported individually, all others are reported quarterly in a summary format¹. This report threshold is crucial to the analysis of small business procurement. Since small business receives an average of less than 15% of the Federal contract actions over \$25,000, yet approximately 50% of the contract actions under \$25,000, failure to record these transactions has proven to be

1. Prior to 1983 the reporting limit was \$10,000.

significant. In 1984, failure to report transactions under \$25,000 resulted in only 25% of the Federal/Small Business transactions to be considered in the SBA analysis of the small business share of Federal procurement (SBA, 1984). A second limitation of the FPDS is that only prime contract actions are reported in detail.

Construction Subcontractor data is only available for subcontracts in excess of \$1 million. The data inputs include the cost of the subcontract, but does not identify the service or product procured, hence, it cannot be included in a detailed industry studies. The inclusion of subcontract values has been shown to be significant. In fiscal year 1982, it was estimated by the Small Business Administration, that the small business share of Federal Procurement would have increased from 26% to 34%, had subcontract data been included (SBA, 1984).

Thirdly, the reporting system only requires that the principal product or service code for the contract action be recorded. This limitation would usually be insignificant, for Federal construction programs, since the Federal Government usually procures one principal facility per contract. In the case of a major BOSS contract, however, it could have some

impact¹.

The Federal Procurement Data System has several additional limitations, but for the purposes of this paper, they are not significant.

The Small Business Data Base, mentioned earlier, is made up of three components: the Master Establishment List (MEL), United States Establishment and Enterprise Microdata file (USEEM), and the Financial Statement File (FINSTAT). Both the MEL and USEEM data lists supplement Dun's Market Identifier (DMI), from the Dun and Bradstreet Corporation, with additional data lists and configurations. The FINSTAT contains financial data on over 800,000 firms. Included in the data base are balance sheets and profit and loss statements. The SBDB has several limitations, the most significant of which is that the MEL and USEEM data was developed from Dun's Market Identifier files. The DMI files were created for the purpose of providing credit histories on a select population of firms, they therefore, have no scientific or statistical representation of firms in any market or industry.

1. BOSS is an acronym used by the Navy to describe major contracts whose scope often includes a turn-key, base construction contract, and operation and maintenance of that installation.

In spite of the significant limitations of the available SBA data, it is far better than what has been available in the past. The SBDC files are the first extensive microdata file developed for Federal statistical analysis (SBA, 1984). In addition, the SBDS has the ability to sort its records by business size, location, transaction amount, owner, and many other record fields; making it a very flexible tool for measuring the effect of federal policy on particular areas of the economy.

Detailed SBA evaluation

The information provided by the various data base systems discussed above, allow the SBA and other agencies to track overall business trends; but what of the individual SBA programs?

The author found, that except for a detailed system of tracking the number and dollar amounts of contracts awarded, the SBA doesn't record any transactions on a national level. It therefore has no periodic evaluation system to determine program effectiveness or utilization. For instance, while discussing the 8(a) program, the author inquired if a firm was watched after graduation from the 8(a) program. The response was that they were tracked, "but not by this office, probably on a national level." Similar responses were received from

at least two different SBA official at different locations and times. Further investigation failed to show that any "after graduation follow-up" is conducted. The actual effectiveness of this and other programs is, therefore, unknown: In a few instances contractors have been hired to study specific areas or programs to analyze its industry impacts.

Summary

Evaluation of the effects federal policies have had on the small business community has been difficult. Federal policy makers have been hampered by a lack of current, and reliable information on which to base decisions. Further, they have been unable to measure the affects policies have had on small business, due to the same lack of information. As a result, the small business communities contribution to the economy has not been analyzed in a detailed systematic fashion. Only in recent years has the Government taken steps to improve the flow of information to the law makers and general public. However, the reporting system utilized by the SBA still tends to provide macro-level data, while ignoring detailed study of its individual programs.

CHAPTER 9
CONSTRUCTION INDUSTRY TRENDS

Discussion

One of the primary objectives of the Small Business Administrations is to promote the creation of small businesses for the purpose of ensuring competition. This chapter attempts to analyze, to what extent the SBA programs have limited small business bankruptcies and promoted the creation of new businesses. The chapter will also look at the distribution of employment within the construction industry and how this has changed since the creation of the SBA.

General

The purpose of the Small Business Administration is to foster and protect the interests of small businesses, promote and assist the creation of small business, ensure free and open competition, and strive to eliminate the economic imbalance faced by socially disadvantaged individuals. The SBA attempts to meet these goals through the various programs discussed in the previous chapters. As has been explained, several of the SBA programs attempt to enhance competition through restricting it. One would expect then, that restricted competition would foster higher prices and an

inferior end product. Other programs provide funding to contractors who could not get funding by conventional means. Do these contractors present a larger risk on construction jobs? Do contractors requiring certificates of competency perform to the same degree as other contractors? Have the policies of the Small Business Administration increased competition in the construction industry by fostering the creation of new businesses? Lastly, has the overall performance of the Small Business Administration increased the share of Federal Procurement going to Small Business? The answer to these questions are not easy ones. As explained in the previous chapter, the data available is very limited and fragmented, making in depth analysis next to impossible.

Using information from a number of sources reasonable answer to these questions are provided on the following pages. Where possible references and supporting data are presented.

Growth of the Construction Industry

When the Small Business Administration was formed in mid 1953, no records existed which could readily indicate the number of construction firms in the United States. Until the late 1960's no organization undertook the task of making a census of the construction industry. Some organizations such as the Associated General Contractors (AGC), could provide a

rough estimate of the number of construction contractors in the country, but it could not provide the detailed statistics needed for industry studies. As a consequence, the SBA has no benchmark from which to measure progress.

In 1967 the United States Census Bureau conducted the first comprehensive census of the United States' construction industry. Three subsequent census' have been conducted and the results published. The census data shows that the construction industry has increased dramatically since 1967 (Figure 9.1)¹.

The Census Bureau data, from which figure (9.1) was developed, is assembled in several formats, including by business receipts and employment. The proportion of small business, included in the overall statistic, can be derived by applying the SBA definition of "small" to the Census data. To ensure statistics for each census year could be directly compared, the appropriate SBA size standard was converted to constant dollars using a present worth factor of 8%².

1. Census data is only presented through 1982 because it take an average of three to four years to assemble and publish each census report. Consequently, the 1987 statistics will not be available until late 1989.

2. The 8% was based on the average Consumer Price Index for the period of consideration.

NUMBER OF CONTRACTORS IN U.S.

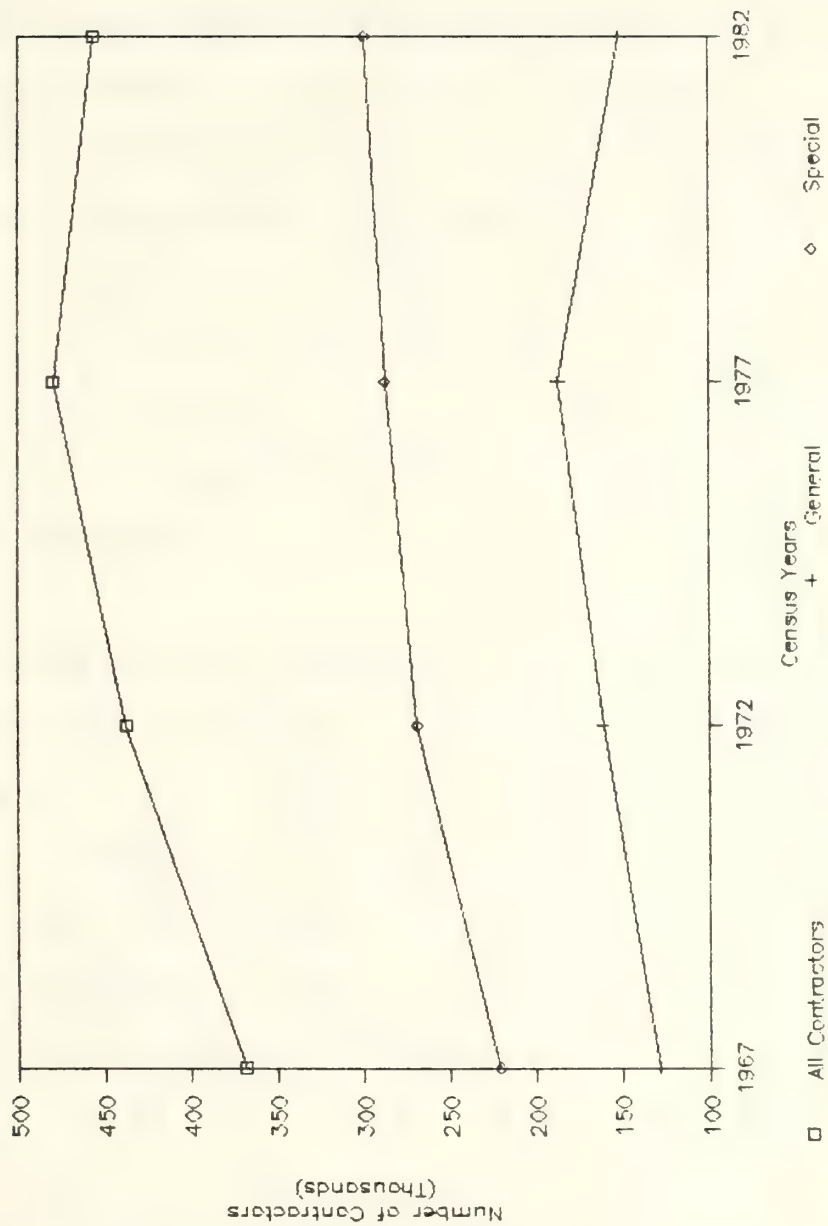


Figure (9.1)

The number of firms falling within the resulting receipt size limit was interpolated, using the straight line method, from the census tables. The results of these calculations are presented in Appendix C of this report.

Figure 9.2 shows that the percent of small contractors has remained relatively unchanged over the period covered by the census reports¹. The relative proportion of small specialty and general contractors, is shown in figures 9.3 and 9.4. These figures dramatically presents the large portion of the construction industry made up of small contractors. This point is further dramatized by figure 9.5, which indicates that, in 1972, only 2.2% of the construction industry was large business. The author found that this was a typical proportion.

Employment by the construction industry parallels the growth in the overall number of construction firms, discussed above (figure 9.6). However, a more detailed look at construction employment will show that, although the number of small firms has steadily increased, the proportion of individuals employed by small firms, has been erratic, or decreasing. See figures 9.7 through 9.9.

1. In figure (9.2) and Appendix C, "other small contractors" includes operative builders, developers and subdividers.

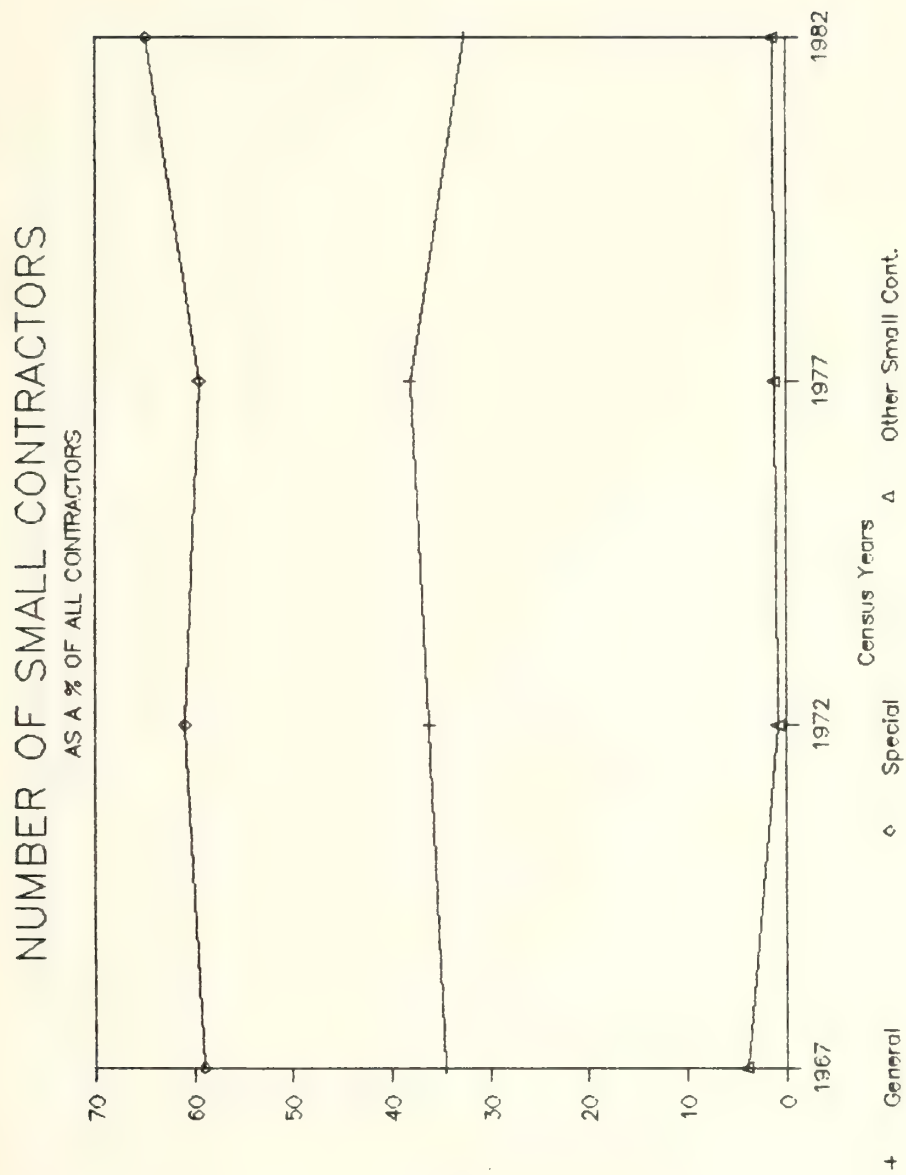


Figure (9.2)

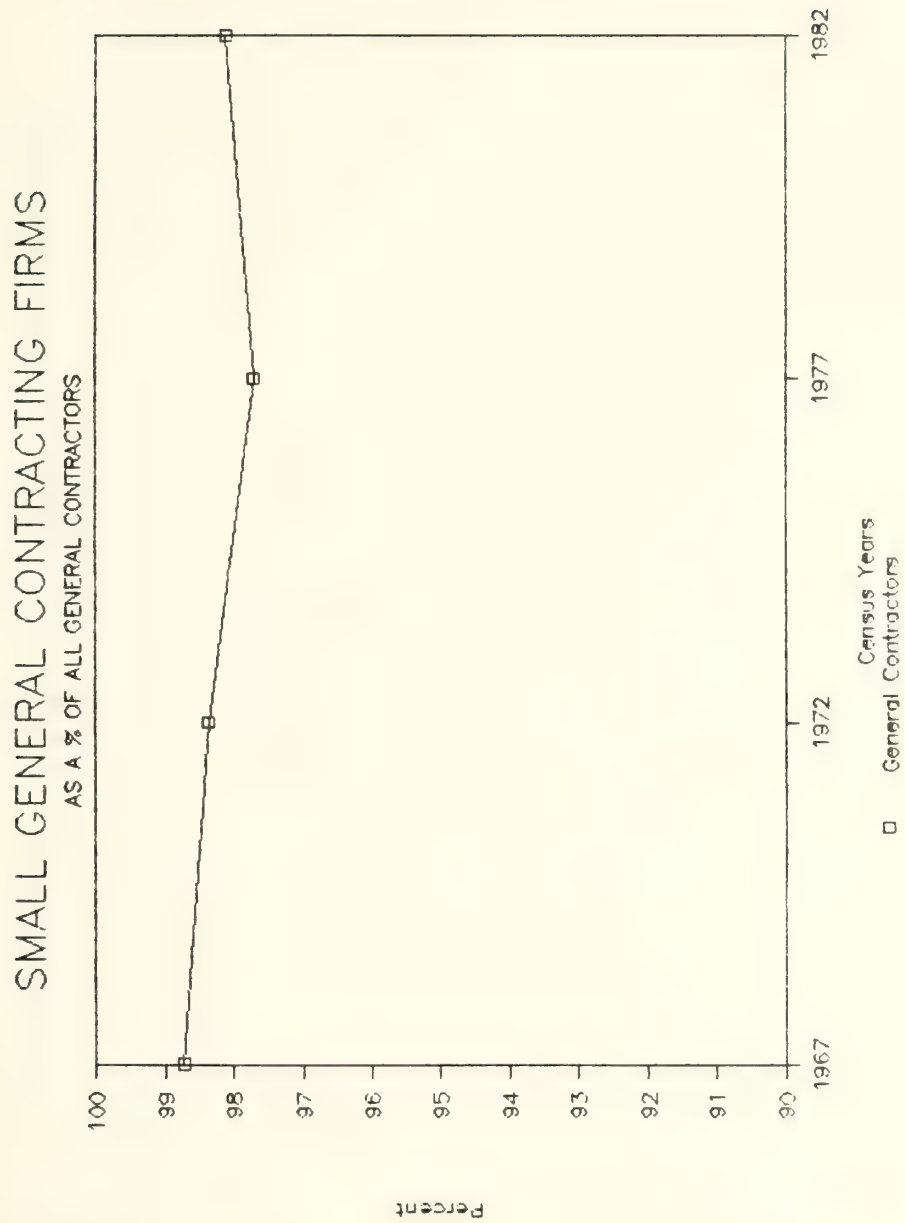


Figure (9.3)

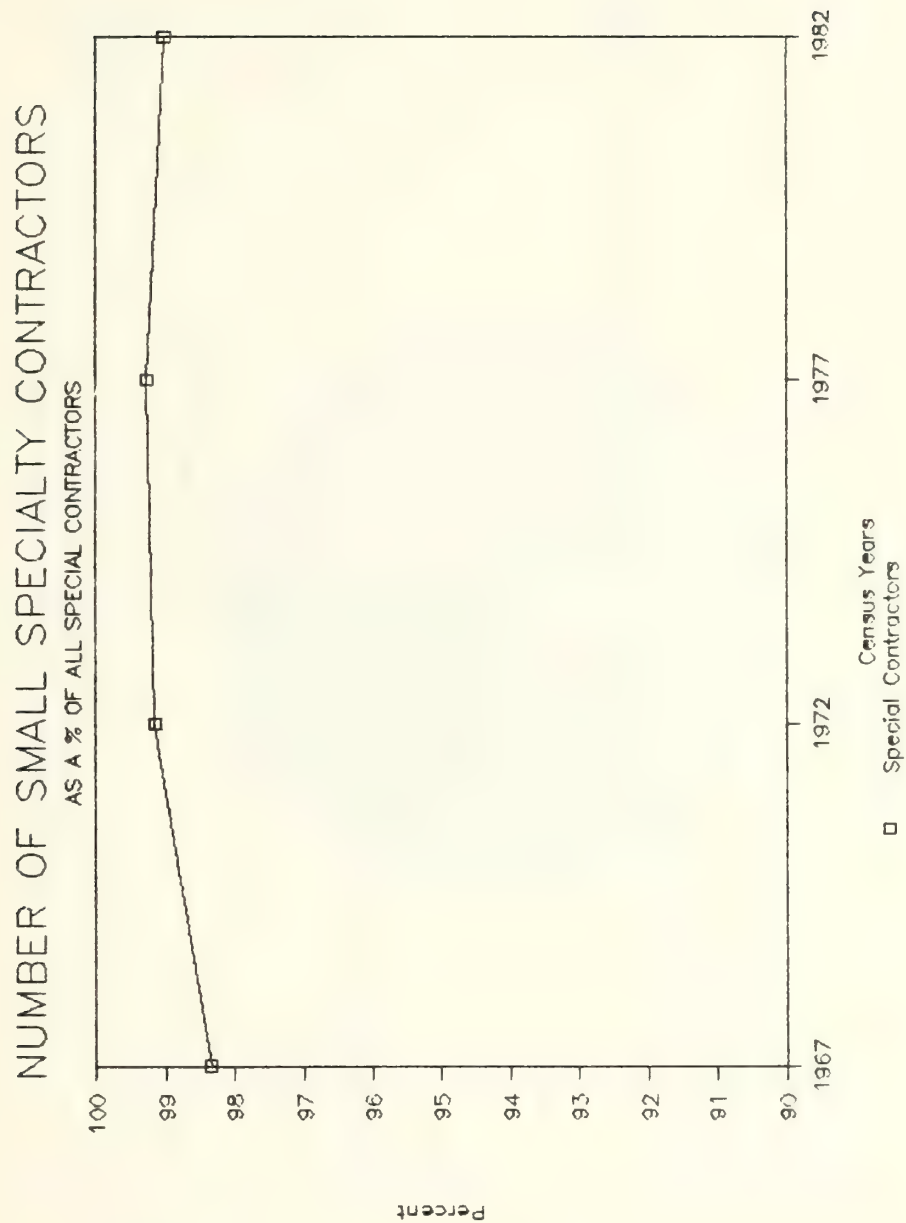


Figure (9.4)

NUMBER OF SMALL FIRMS (1972)
AS A % OF ALL CONSTRUCTION FIRMS

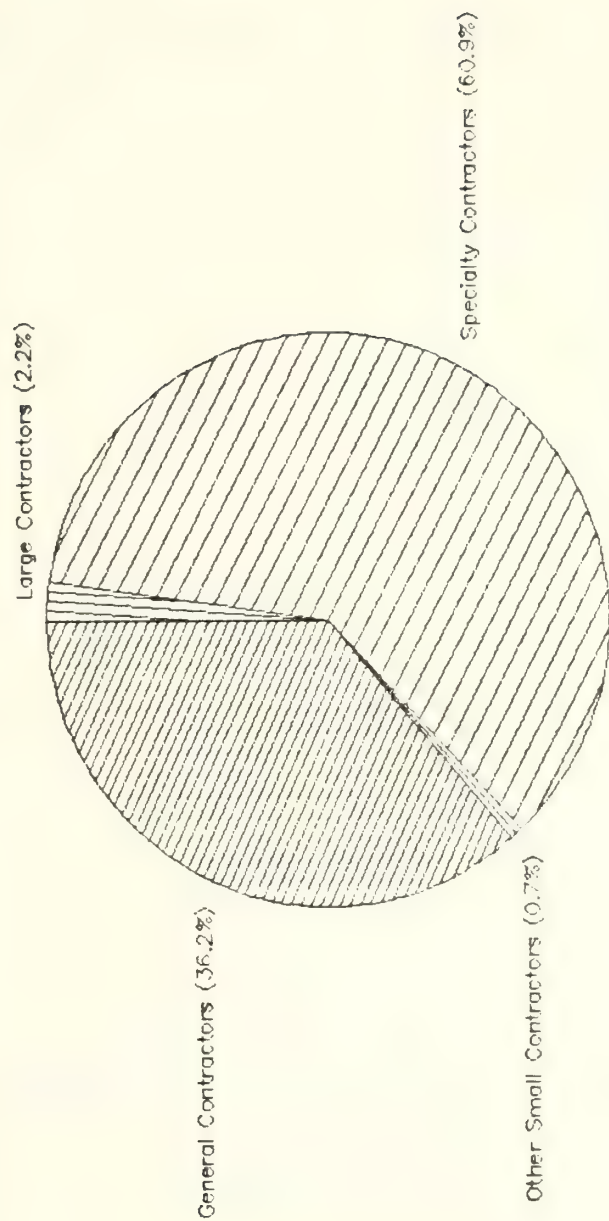


Figure (9.5)

EMPLOYMENT BY CONTRACTORS

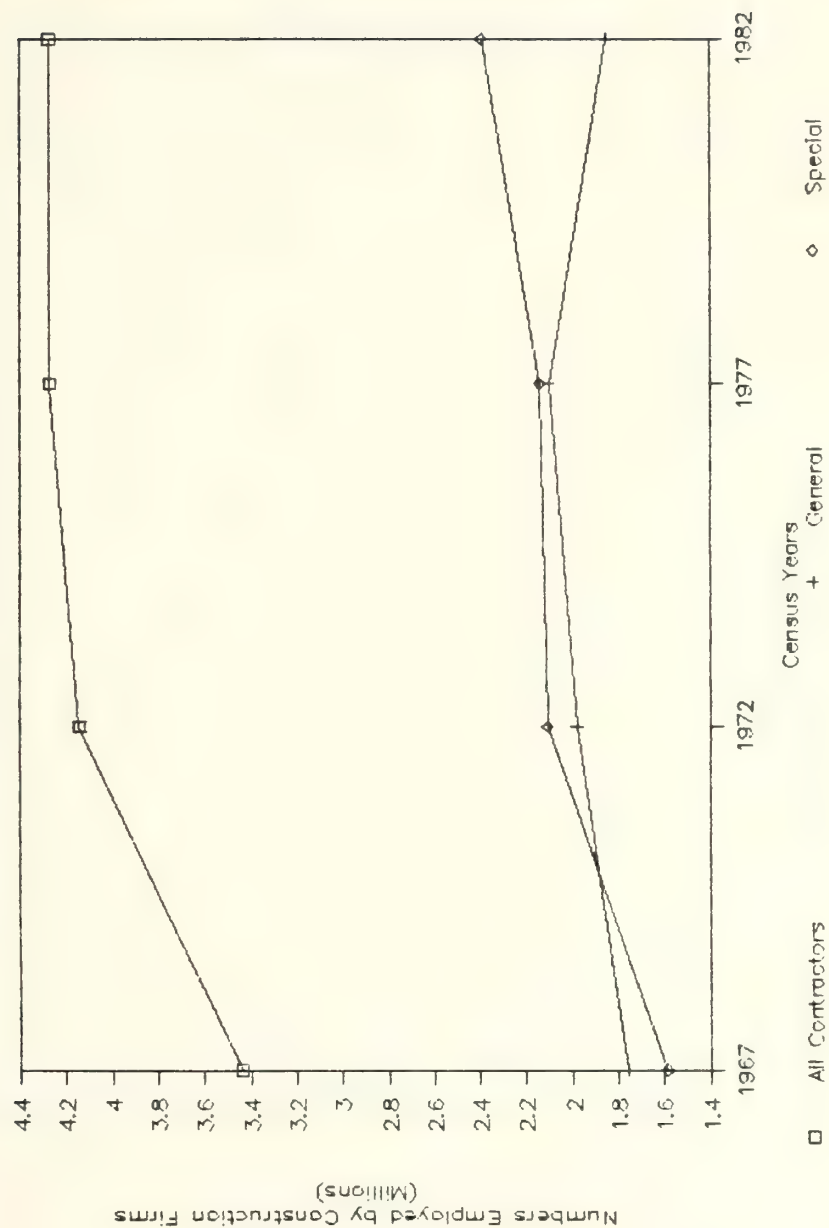


Figure (9.6)

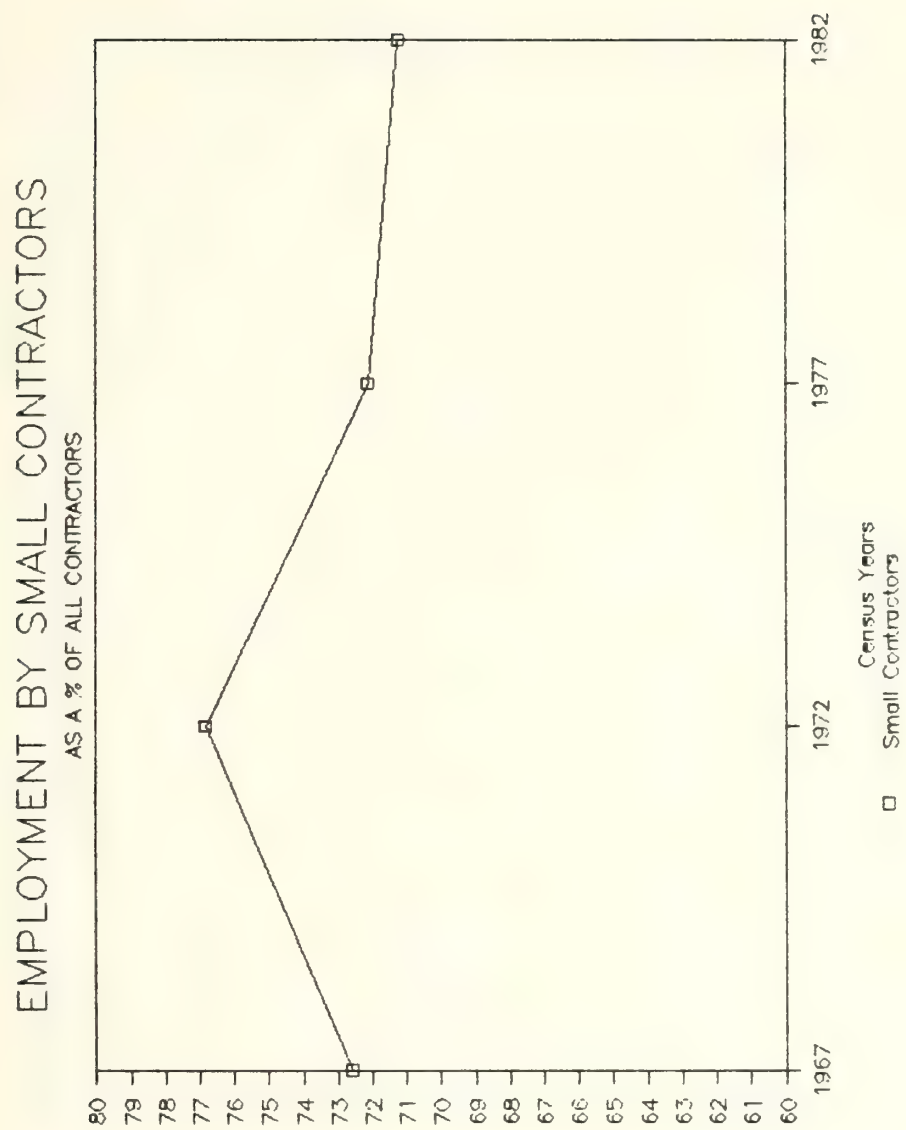


Figure (9.7)

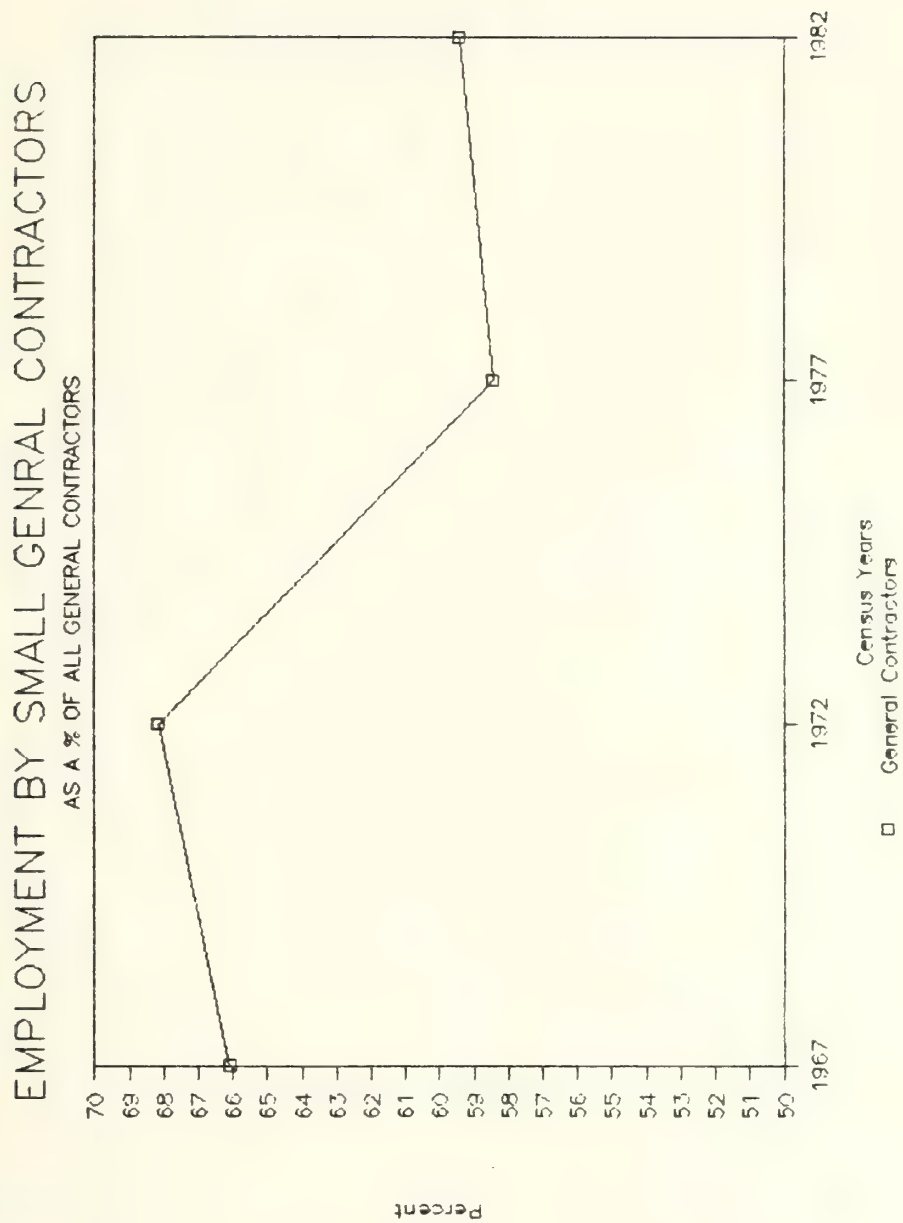


Figure (9.8)

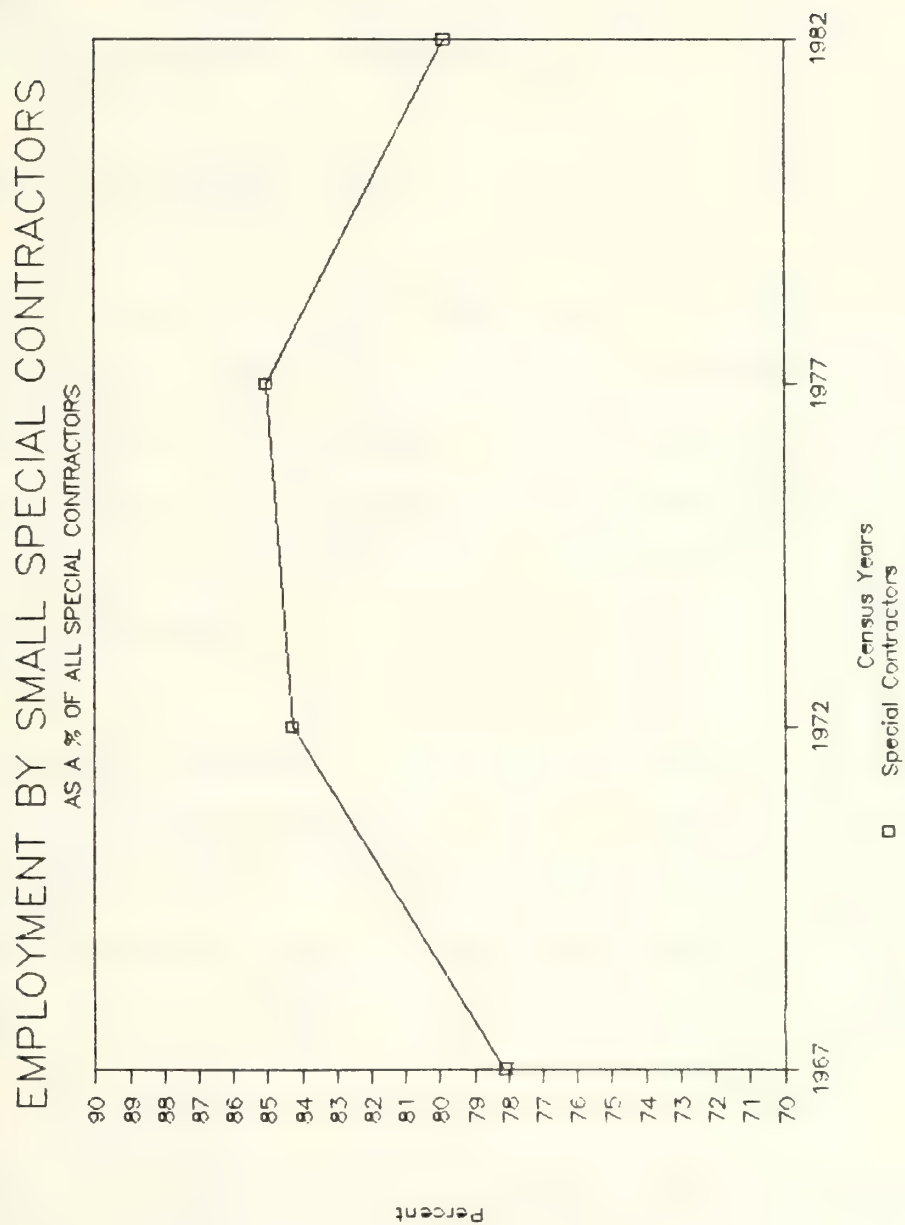


Figure (9.9)

Figure 9.10 illustrates a typical distribution of employment within the construction industry. This figure was also derived from the census data for 1972. Please note, that although the small business share of employment has decreased, it typically is well in excess of 95% of the industry's employment. This is further illustrated by the additional statistics presented in Appendix C.

Construction Business Starts

As with several of the areas which the author planned to make detailed analysis, the area of construction firm starts has not been well documented. After investigating several possible sources for comprehensive business start data, the author was forced to utilize the limited data available from Dun and Bradstreet¹.

Dun and Bradstreet Corporation publishes a periodic summary of business starts for all of the two, and 3 digit, SIC codes utilized by the SBA in making size determinations. The business starts data includes new firms, but not changes in legal status, name, location or ownership changes of

1. The author investigated using data from the court system and IRS tax records. For a number of reasons including cost, excessive research time and limited value of the data, both sources were eliminated from consideration.

existing firms. For this reason, the Dun and Bradstreet data is superior to that available from the other sources examined. Unfortunately, D&B did not start publishing the **Business Start Record**, until 1985.

The limited data available from D&B is presented graphically in Figure 9.11. The graph shows that construction business starts have experienced a constant decline over the three years presented. Dun and Bradstreet attributes this decline to three factors. The first year the business start report was published, was toward the latter stages of a "robust" recession recovery period, consequently, a number of entrepreneurs had already entered the industry. Secondly, in 1986, pending tax reform legislation, discouraged many individuals from starting new businesses. Lastly, the poor economic conditions in the oil producing regions "resulted in weakness in entrepreneurial activity...(Dun and Bradstreet, 1988)" The limited period over which this data is available renders it worthless for the purpose of investigating long term SBA policy impacts.

% EMPLOYMENT BY SMALL CONTRACTORS
AS A % OF ALL CONTRACTORS

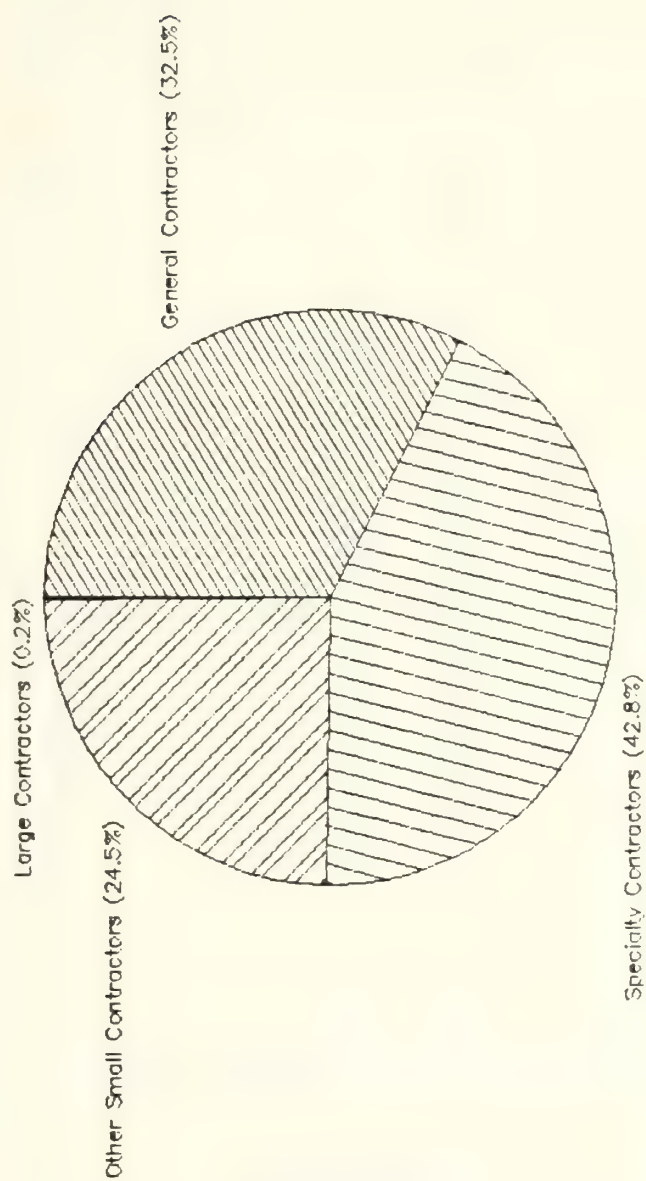


Figure (9.10)

CONSTRUCTION BUSINESS STARTS

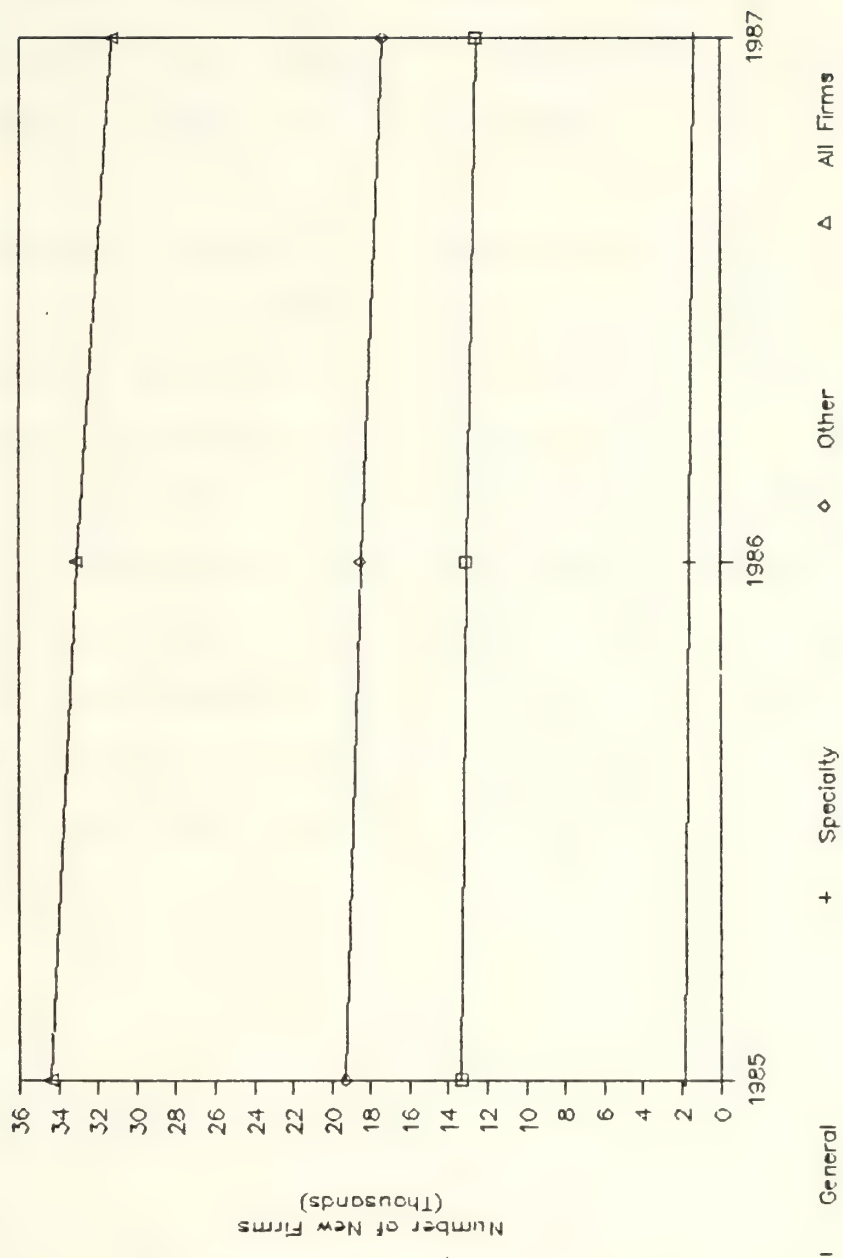


Figure (9.11)

Business Failures

The Dun and Bradstreet Corporation has maintained business failure records since 1920¹. Business failure data, like the business starts data, includes a majority of the SIC codes used by the SBA. Extensive, comprehensive, construction industry data was thus readily available.

Construction industry failures presented in Figures 9.12, and 9.13, provide a breakdown of the data by contractor type. Two interesting observations can be made from these graphs: A sharp peak in construction failures occurred in 1975. A similar, but much more extreme, increase occurred between 1982 and 1985. Additionally, comparing figures 9.13 and 9.11 to figure 9.5, provides further insights. On the average, more than 95% of the construction industry is comprised of small firms, intuitively, one would expect that the same proportion, or more, of the firms started, or failed, were also small business.

1. Dun and Bradstreet defines a business failure as a business involved in court proceedings or voluntary actions involving losses to creditors. The **Business Failure Record**, therefore, does not include all business discontinuances.

CONSTRUCTION BUSINESS FAILURES

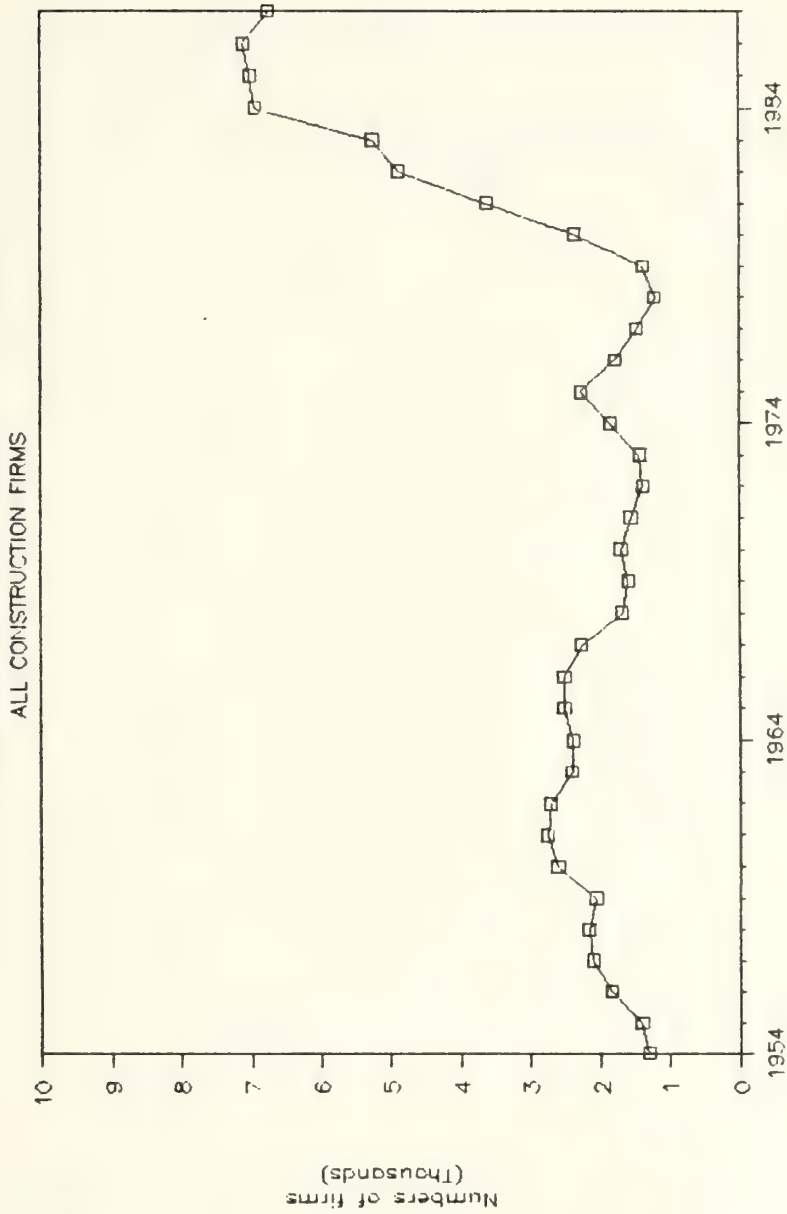


Figure (9.12)

CONSTRUCTION BUSINESS FAILURES

ALL CONSTRUCTION FIRMS

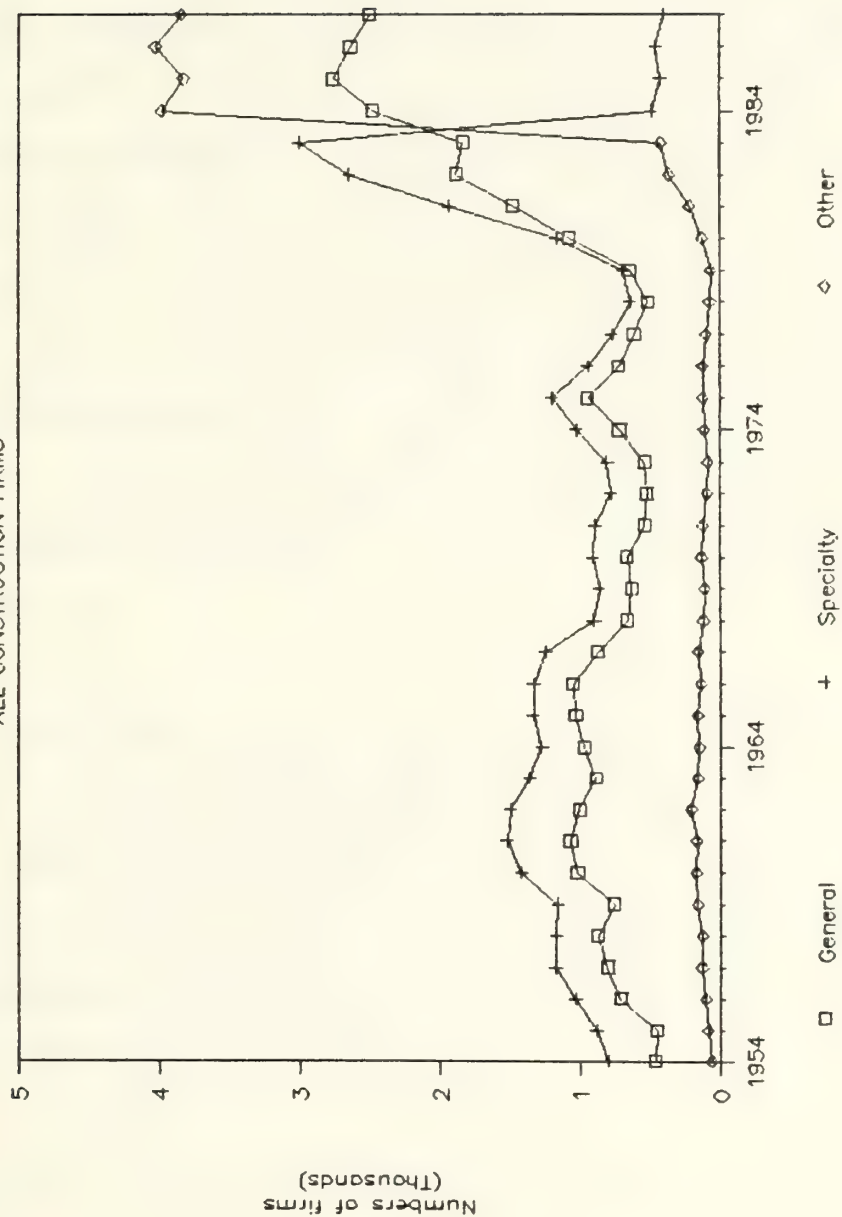


Figure (9.13)

The high rate of failures which occurred between 1982 and 1985 took place at the same time that the country was experiencing a "robust recovery period", following the recession of the late 1970's and early 1980's (Dun and Bradstreet, 1988). The Small Business Administration explains this high rate of business starts and creations, as being a "continuing business trend, common to all industries in the United States". They say that a general rise in new businesses has occurred continuously since 1967. "As new businesses form and fail faster, relative to existing businesses, it is inevitable that new business growth will result in some increase in business failures." They also credit this phenomenon to "a structural shift toward self-employment," with the "traditional risks associated with entrepreneurship" resulting in increased business failures (SBA, 1984).

The 1975 failure peak roughly corresponds to the first major oil shortage experienced by the United States, which began in 1973 (Faulkner, 1968). This suggests that the rate of business failure is also strongly influenced by the state of the national economy, with little influence applied by the Small Business Administration.

The Small Business Administration estimates that 40% of all existing small firms do not rely on any of the commonly used financing sources, over 60% do not even rely on individual savings accounts (SBA, 1988). This then, leaves only the SBA business management programs for influencing the business failure statistics.

The following chapter will show that the management programs have not been utilized sufficiently to apply any influence on the U. S. economy.

The Fair Share

The legislation which created the Small Business Administration speaks of ensuring small business receives its "fair share" of the Federal Procurement Dollar. Nowhere in that legislation is, "fair share", defined. In dealing with the SBA and other procurement personnel it soon becomes obvious what the "fair share" referred to is. Most references to the "fair share" mean, an amount of contract dollars awarded to small business, equal to the ratio of the number of small businesses divided by the number of large businesses. The goal to provide small business their fair share, is then, very subjective and difficult to determine conclusively.

Table 9.1 provides a listing of individually reported Federal procurement actions, awarded to small businesses between 1979 and 1985¹. In 1985, Construction comprised approximately 6% of the awards received by small business, which is only sixty percent of the construction dollars awarded that year (SBA, 1987). Sixty percent is relatively small when one considers that the construction industry is dominated by small business.

One study commissioned by the SBA in 1986 found that "the fact that small firm procurement is disproportionately low does not, however, establish evidence that an inequitable situation exists...Federal government procurement may be concentrated in industries which are dominated by large business (Faucett, 1986)." This same study found that after combining the individually reported contract actions, estimated subcontract actions, and awards below the reporting threshold, small construction firms still only received roughly fifty five percent of the Procurement weighted share of Federal construction dollars². Of more interest, is the

1. Prior to 1983 contract actions in excess of \$10,000 were reported, after that date the report threshold was increased to \$25,000.

2. The investigators merged the data contained in the FPDS and SBDB to obtain a more accurate estimate of the contract share awarded to small business. The procurement within each Standard Industrial Classification (SIC) were then weighted by the amount of procurement from that SIC. The values were weighted because the Federal government doesn't have the same

investigators' finding, that roughly 50% of the awards made to small business were through the Set-Aside program (Table 9.2).

procurement mix as the private sector.

INDIVIDUALLY REPORTED CONTRACT ACTIONS
1979-1985

Fiscal Year	Small Business		Small Business Share (Percent)
	Total (Billions of Dollars)		
1985	182.6	25.2	13.8
1984	167.7	25.4	15.2
1983	155.4	22.0	14.1
1982	152.3	23.5	15.4
1981	128.6	19.8	15.4
1980	100.8	15.3	15.2
1979	88.2	14.0	15.8

Note: Reproduced from **The State of Small Business: A Report of the President** (1987) with dollar figures rounded to the nearest \$100 million.

Table (9.1)

CONSTRUCTION
PROCUREMENT SHARE
VS.
INDUSTRY SHARE

Year	Small Business Share (%)		
	Sales	Procurement	
	(Weighted Procurement)	Total	W/O Set-Asides
1981	54.56	47.61	21.86
1982	55.14	52.39	19.66
1983	56.18	52.17	17.29

Table 9.2

CHAPTER 10
PROGRAM ANALYSIS

Background

Chapter 8 provided some discussion of the limited data available to the Small Business Administration and other researchers. For the reasons discussed in that chapter, it is not possible to provide a detailed analysis of each of the programs managed or associated with the SBA.

As the author conducted the research for this paper, he learned of many programs he was not aware of. The fact that he did not know of these programs made him question how many small business owners were also uninformed. A construction business survey was conducted to establish how many owners, or managers, knew about the SBA programs, and who took advantage of them. The results of the survey will be presented followed by a discussion of the Small and Disadvantaged Business (8(a)), and Title II programs. These two programs make up the remaining segment of SBA construction involvement, not already analyzed.

SBA Program Awareness

After questioning my own knowledge about the extent of the Small Business Administration's assistance programs, I began questioning friends and relatives. I found that a majority of the persons questioned had little or no idea what the role of the SBA is. This naturally led me to question the awareness of the business management and loan programs, among construction business owners and managers.

Beginning in late April 1988, a business questionnaire was developed which addressed most of the major SBA programs (Appendix D). Questions were divided into three sections. The first section, was to establish the probable size category in which the SBA would place the firm. Section two asked specific questions about past management experience or business ownership. This was to try and see how many of the managers had been in business, had succeeded or failed, and whether SBA assistance was utilized by that firm. The questions in part three, were designed to be answered as yes or no, and were intended to give an indication as to whether the respondent was aware that a specific program existed¹.

1. Program awareness was limited to a basic knowledge that such a program existed, but not necessarily a detailed knowledge of its workings or qualification requirements.

The survey was conducted in two phases because of a poor response from the first attempt. The first phase, was a mailing of 100 questionnaires to small construction firms doing in the Atlanta, Georgia area. The names of the firms were obtained from the Atlanta Builders Exchange or from the Associated General Contractors (AGC) roster. Phase one received only 54 responses, of which 18 were classified as large business and eliminated from the analysis. Phase Two of the survey was conducted by telephone in late May and early June 1988. This survey of an additional 100 firms, resulted in 65 responses with 14 being discarded.

From both phases of the survey, a total of 69 small business responses were received, of which 6 were specialty contractors. 34% of the respondents presently perform government contracts but only 8.7% of the respondent's firms have used any form of government assistance.

The SBA programs that exhibited the greatest degree of public awareness, are the guarantee loans and bonding programs, in which 60% of the respondents were aware of the programs. It is interesting to note that the highest participation by the respondents was in the bonding and management publication programs, and the loan program had no participants among the surveyed firms.

Awareness of the Title II program and 8(a) program was 56% and 59% respectively, followed by the management training programs, at 30% to 40%. One of the survey respondents admitted to having substantial management and financial difficulty. This firm had received Federal contracts in the past, but could no longer get a bond. Further, he admitted that he was on the brink of bankruptcy, yet was unaware of any assistance available through the SBA¹.

The overall participation rate of 8.7% for the small construction businesses surveyed, is the basis for the opinion, expressed in the last chapter, that the SBA has little influence in the nations economy or the construction industry.

The statistical accuracy of this survey can be questioned, especially if the results are extrapolated to the national level as I have done. However, the results presented are within reasonable agreement with results obtained by the SBA on similar studies. A few of these studies will be discussed in the following sections.

1. It is also interesting that one of the large firms that responded to the survey admitted to having used a minority owned company to act as a front for receiving 8(a) contracts.

8(a) Program Participation and Cost

None of the respondents to the business survey were small disadvantaged businesses (8(a) contractors). At first the author thought it was due to survey error. It has since been surmised to be the result of a scarcity of 8(a) contractors.

In the Atlanta, Georgia area, the combined 8(a) participation for all industries is only 94 firms.

Since the start of the 8(a) program in 1968, only 4598 firms across the country have participated in the 8(a) program. As of October 1987 only 1,287 firms have graduated to self sufficiency (Luke, 1988). The bulk of 8(a) firms are located in the Philadelphia and San Francisco areas. It is interesting to note; in the bidding analysis, presented later in this chapter, none of the 8(a) bidders received awards, even though the data included Navy Construction in the Philadelphia area. Failure to award contracts to the 8(a) firms resulted in insufficient data to analyze the 8(a) contract cost growth.

In a survey of contracting officers, the General Accounting Office (GAO) found that 36 percent of the 8(a) contracts are more costly to the government, while only 9% of the non-8(a) contracts are more costly. In the same survey, the GAO found that nearly half of the contracts awarded to

8(a) contractors required substantially more administrative monitoring (Luke, 1988). In the same report over 35% of the 8(a) dollars awarded in 1987, went to 50 firms while over 1,225 firms received no contracts at all.

The administrative cost of 8(a) contracts has been alluded to as being higher than competitively awarded contracts, the lead time for award is also excessive. The GAO in a 1982 investigation, found that average time to award an 8(a) contract was roughly 95 days, while competitive contracts were well under 100 days (GAO, 1982). The GAO also found direct costs for 8(a) contracts to be excessive.

"from the procurement activity's standpoint, the pricing of 8(a) contracts is unique. Rather than determining a fair and reasonable price...contracting officers are expected to determine a "competitive market price, based on what they would expect to pay viable competitive firms (GAO, 1982)."

In addition, it was found that contracting officer were expected to add up to 20% on fair market prices to cover contractor inefficiency, with the difference in price to be refunded by the SBA¹ (GAO, 1982). You will recall, in

1. In 1972 the SBA received \$8 million to start a Business Development Fund (BDE). The fund was to be used for paying the differential between negotiated 8(a) contract prices and fair market price. Until this time, contracting agencies facing fiscal limitations were reluctant to award 8(a) contracts, because the higher costs would be funded from the

chapter 5 the existence of an apparent conflict of interest in the 8(a) negotiation procedures was discussed. This conflict was also recognized by the GAO. The GAO found the SBA's Standard Operating Procedure (SOP) 80-05 instructs:

"The purpose of the negotiations...is to negotiate the terms and conditions of the proposed subcontract and agree upon a price which will permit the 8(a) concern to perform and earn a reasonable profit. It may be assumed that the representatives of the contracting officer...will need to limit the contract price to the amount they consider to be the "fair market price" or less. If the price proposed...is not considered sufficient to assure a reasonable profit...the SBA contract negotiator...will conduct further negotiations for the purpose of obtaining agreement to the higher price (GAO, 1982)"

The affect this SOP has on the contract costs will become evident in the following paragraphs.

8(a) Contract Bidding and Growth

Appendix E provides a printout of the Small Business Award Data base obtained from the Northern Division, Naval Facilities Engineering Command, Philadelphia, PA. (NORTHDIV). NORTHDIV is the Navy's regional facilities managers and construction administrators, responsible for all Navy facilities in the Northeastern and Northern Mid-West of

agency budget. In 1982, the BDE fund was increased to \$20 million.

country. This data base was used to analyze the bidding record of firms doing business with the Navy. The data base contains approximately 1800 individual bids on over 450 contracts ranging in value from \$10,000 to \$15 million. Although the data base was intended to keep track of only Title II and 8(a) contracts, some large businesses submitted bids, thus, allowing direct comparison between large and small business bidding.

Prior to doing any analysis on the data base, the size status of each firm was confirmed, or else discarded from consideration. After this process was complete, 20 contracts with 33 bids from 8(a) contractors remained. The bids were then compared to the government estimate¹. It was found that the bids submitted by 8(a) contractors averaged 75% (1.75 times the estimate) above the government estimate, with a variance of 94.7%. Awards to the 8(a) firms averaged, only 8.08% above the government estimate, however, the government estimate was probably adjusted upward by 10%, in accordance with the Federal Acquisition Regulations discussed in chapter

1. The government estimate was chosen as a benchmark for comparison of the bids, and awards, in order to maintain a relatively constant datum. It is assumed that the government estimates are made by a relatively small number of engineers and the effects of any skewed estimates will be minimized through the Central Limit Theorem.

The SBA, in 1983, commissioned an investigation of contract growth. This study found, overall, negotiated non-competitive contracts awarded to small business, grew an average of 64% during the life of the contract. Construction contracts awarded on a non-competitive basis grew by only 20%, the smallest increase of all the industries studied (SBA, 1984).

Title II Contracts

An identical analysis was conducted for contracts awarded to large businesses, and small businesses participating in the Small Business Set-Aside program. The study showed that on the average, Federal Contracts were awarded more frequently to Title II firms when they were formally advertised as firm fixed price contracts. The SBA attributes this to favoritism toward the large contractors, principally due to reduced

1. Informal discussions with present and former Navy contracting officers, indicate that it is a common practice to add the 10% "reasonable price threshold" allowed by FAR 19.806-2.

administrative burdens. The study also found,

"When contracts are classified by their original sizes in FY 1982 dollars, the frequency of modification increases with contract size. The same is true of growth in contract value with two exceptions: contracts that started off between \$1 million and \$5 million in FY 1982 dollars grew a bit more than larger contracts and, more notably, the contracts showing the greatest percentage growth were the ones that started off between \$10,000 and \$25,000 (SBA, 1984)¹."

These findings agree very favorably with those of the authors limited study.

Title II Contract Bidding and Growth

A bidding study identical to the 8(a) study performed on the NORTHDIV small business award data base, was conducted for Title II and large contractors. For Title II Contracts, the average bid exceeded the government estimate by 25.7% with a variance of 70.3, based on a population of 413 bids on 104 individual contracts. The result for large business, was an average of 6.23% over the government estimates with a variance of 38.8. The award prices for Title II contracts averaged +6.8% above the government estimate, while large business awards were -16.1% below the estimate. The variances for

1. This is even more alarming when one considers that the data did not include contracts less than \$10,000.

these averages were 33.85 and 25.6 respectively.

The study of Title II and Large Business contract costs was taken one step further. Another data base was provided by NORTHDIV, that included all of the contracts over \$10,000, awarded since 1981 and completed as of 30 June 1988. This data base was cross checked with the small business award data base used in the previous analysis. The cross check was done to separate contracts awarded to 8(a) firms from Title II and Large contractors¹. From this data base, the contract growth rate for the Title II contracts and large business contracts was calculated. Appendix F provides a copy of the data base and summary calculations of contract growth.

For Title II contracts it was calculated that an average of 4.4 changes are negotiated during the life of the contract, while large contractors average 14 changes per contract. The variance for this analysis is 5.1 and 4.4 respectively. The change in contract value increased an average of 2.29% of the bid price, for Title II Contracts, and large contractors increased the contract value by 6.86%. The average cost of the large firm's contract was \$3.6 million while that of the small contractor was \$885,000. Large contractors had more changes per contract, and the average values was also much

1. Insufficient numbers of 8(a) contracts were available to do any further statistical analysis.

higher. The large contractors changes averaged \$17,150 and those of the small contractors averaged \$4,606.

For the most part, the figures presented above agree with those obtained by the SBA in their 1983 study. They found that competitively bid contracts averaged 4 changes per contract, and the contracts experienced a larger growth rate, and number of changes, as the cost of the contract increased. The study found, however, that the rate of growth was substantially higher than those recorded in this study; (20% and 49%) for small and large contractors respectively (SBA, 1984). The difference is undoubtedly due to the method of calculation and extent of the study¹.

1. The SBA study conducted over a three year period, incorporated a majority of the largest Federal contracting agencies. All of the contract costs were converted to constant 1982 dollars. A large number of contracts were eliminated from consideration for reasons too numerous to list. The eliminated contracts accounted for over 44% of the Federal contract actions during the period of study.

CHAPTER 11

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The Small Business Administration was established in the early 1950's to provide a means for minimizing the unfair advantage large, established firms, had in the market place. Early programs were designed to assist businesses to become more competitive and hence, ensure the government received quality goods at a fair price. The early programs also attempted to ensure no one firm was able to command the market place, thereby, being given the opportunity to control prices and supply.

As time progressed the SBA's programs were diverted more toward social and economic equality, than business assistance. In an attempt to achieve social equality the focus of the SBA programs changed from small business versus large business, to one of "fair share." The goal now is to provide each social and economic group, within the small business community, its "fair share" of the Federal dollar.

The largest, socially targeted program, is the Small and Disadvantaged Business (8(a)) program. The 8(a) program is aimed toward assisting minority owned businesses to become

self sufficient through a process of management training and the award of non-competitive government subcontracts. A number of studies have concluded that this program results in increased contract costs with minimal benefits. Bid costs have been estimated as high as 30% above competitive contract costs, with growth rates estimated at an additional 20% (SBA, 1984). Many participating contractors, view this program as an end unto itself, with little interest in developing into a self sufficient firm. The program, through poor management and poorly defined guidelines, limits its assistance to a very small portion of the enrolled eligible firms. In spite of its limitations, the 8(a) program has assisted some 1,287 firms to become viable, competitive businesses in the first 20 years of operation. (Luke, 1988).

The effectiveness of this program was best summed up by the GAO in its 1981 report,

"The program has done too much for too few for too long (GAO, 1981)"

Unlike the 8(a) program, the Small Business Set-Aside program appears to be essential to the well-being of the nation. It is difficult to say, to what extent the Title II program has assisted the nations economy, or fostered the creation of new businesses. The SBA did conduct a cost

benefit study of the program in 1969, and concluded the benefits exceeded the cost by a ratio of 9.5 to 1 (Bothmer, 1973). Based on the arguments and analysis presented in this paper, it is obvious that the construction industry has benefitted.

The previous chapter indicated the differential in bid prices, between large and small contractors, was 19.4% (25.7%-6.3%) of the government estimate. It was also shown that large contractors tend to have contract growth in excess of 49% of the original bid amount (SBA estimate). Without the bidding restrictions imposed by the Title II program, large contractors would be almost assured of receiving the contracts they want, without even changing bidding strategy or profit margins. Once the contract is awarded, the owner would suffer through significantly higher cost growth. The predominant small contractor would suffer significantly and eventually go out of business.

The overall, direct impact the SBA programs have had on the construction industry is relatively slight. Too few firms participate in Federal procurement to make a significant impact on social or economic conditions across the country. The Federal government does provide a significant dollar amount to the construction industry each year, well over 50% of which goes to small businesses. However, the construction

industry is predominantly small business, so limiting bids to small firms has not significantly reduced competition. What it has done is reduced cut throat competition by large firms.

The SBA was established with the intention of distributing Federal procurement dollars to small businesses in proportion to their share of the industry. The method employed by the government has attempted to distribute procurement dollars in proportion to the small business/large business ratio which exists in the private sector. The same ratio does not exist among the firms participating in government procurement. As a result, rather than distributing the procurement dollars to a fair share of the industry, a high percentage of federal procurement money goes to a relatively small segment of the small business community. Once again, the government is leaning toward, "doing too much for too few."

The number of firms utilizing the remaining SBA programs (bonding, loans, management assistance etc) is insignificant. Although the business survey results indicated that a few firms had utilized the bonding program during the early years of their businesses life, the overall participation was only 8.7% of the firms surveyed. The likelihood of these programs making a significant impact on the construction industry is remote.

Recommendations

With the number of valuable SBA and SCORE resources available to the small business owner, it is unfortunate that they are not more fully utilized. It is especially distressing to think that the SCORE volunteers can provide years of experience free of charge, and yet, businesses fail to take advantage of it. It is shameful that the small business owners have the potential resources of every major university and government research facility at their disposal, and yet it is not even realized. Finally, the SBA itself condones charging the government higher than "fair" prices, in order to cover contractor inefficiency. What should be done about the concerns expressed above?

It appeared to the author, the offices of the SBA were far too compartmented to work efficiently. A number of the personnel interviewed for this paper indicated that few, if any, referrals were made between offices within the SBA. I believe partly for this reason, the GAO found that the SBA staffs were overworked and unable to perform basic management training evaluations (GAO, 1982). Had internal SBA referrals been performed, more businesses could have been assisted by SCORE and SBDCs. The author's recommendation to the SBA would be; to strive for more internal communication and referrals

to other offices, including the SCORE counsellors. In fact, it is the author's opinion that SCORE should be the first place that a business owner goes before seeking an SBA loan or other assistance.

The effectiveness of the business management assistance programs, are research programs is hampered by a severe lack of publicity. The potential of these programs is virtually limitless, unfortunately, the public is not aware that they exist. The benefits generated by publicizing these programs would, undoubtedly, far outweigh the costs.

The SBA has the appearance of a conflict of interest in the administration of the 8(a) program. Each SBA office involved in negotiating 8(a) subcontracts or change orders should make a concerted effort to remove the apparent conflict. Such actions could include assigning the negotiation to a team from another office, or simply, ensuring the negotiators are not aware of the government estimate prior to the negotiation. Selecting negotiators unfamiliar with the government estimate would remove some scrutiny of the program, and assist the SBA in evaluating what the "true" market price is.

In conducting the second phase of the construction business survey, the author received many inquiries about the bonding program. It appeared many construction firms were reluctant to award contracts to small firms utilizing SBA backed bonds. The contractors fear the bonds are, "a bond of last resort", and therefore present a higher risk of default. Some concern was expressed that it would be difficult to collect on the bond in the event a contractor failed to perform. The SBA should publicize, perhaps to the contractors on the PASS listing, the facts about SBA backed bonds. Informing prime contractors of the facts could assist a few more struggling firms.

Lastly, the SBA should attempt to establish a system for monitoring its progress in relation to the established SBA goals. Except for contract actions in excess of \$25,000, the SBA has no central data base. Banks providing loans, surety companies providing bonds and research institutes assisting businesses, do not provide the central SBA office any continuing information about their activities. This is not to advocate more bureaucratic paperwork, however, knowing the utilization of the program would be helpful in evaluating the effectiveness and the cost of the SBA.

In summary, the programs sponsored and supported by the SBA have potential to significantly help the small business owner and construction industry. The major programs as they are now organized are far too restrictive to provide a significant impact on new business starts. The management assistance and research programs have significant potential, but are not publicized and therefore are not utilized sufficiently to significantly affect the economy. Lastly, the loan and bonding programs, in the opinion of the author, are well organized and provide an essential service at a reasonable rate; no significant changes are required.

Further Research

Further research in this area, at the scope attempted here, would be difficult. Far too few records are kept on the construction industry, and its performance in the Federal and private sectors. Once the construction data base is established and operating at Indiana University, perhaps some of the data gaps will be filled, and the effectiveness and cost of Federal contracts can again be studied.

Two other related areas of interest include: determining the percent of graduated 8(a) contractors who have continued operation and their rate of growth compared to other firms. Secondly, compare the private sector, small business award

ratio, to that of the Federal Government. A study similar to those suggested would give an indication of what would happen in the small business community without government intervention. They would also provide another measure of the SBA program impacts.

BIBLIOGRAPHY

- General Accounting Office (GAO, (1981). **The SBA 8(a) Procurement Program-A Promise Unfulfilled.** A report to Congress by the Comptroller General of the United States, United States General Accounting Office Document Handling and Information Service, Gaithersburg, MD
- U. S. Senate, Banking and Currency Committee (1953). Banking and Currency Committee, Government Lending Agencies. Hearings on S. 892, 1953.
- American Economic History. Eight Edition. Harper and Row, New York, NY.
- Bothmer, Clyde, (1973). **The Vital Majority: Small Business in the American Economy,** "The Small Business Administration Government Procurement Program." United States Government Printing Office, Washington, D. C.
- Census, (1971). "Bureau of the Census, Minority-Owned businesses: 1969, **Publication MB-1.** United States Government Printing Office, Washington, D. C.
- Chase, A. G. (1974). "Federal Support of the Vital Majority: The Development of the U. S. Small Business Administration." **The Vital Majority, Small Business in The American Economy,** U. S. Government Printing Office, Washington, D. C.
- Daugherty, K. (1988). Interview conducted on June 16, 1988 Philadelphia, PA.
- Dun and Bradstreet (1962). **The Failure Record Through 1961.**
- Dun and Bradstreet (1984). **Business Failure Record 1982-1983,** Dun and Bradstreet Corporation, New York, NY.
- Dun and Bradstreet (1988). **Business Starts Record,** The Dun and Bradstreet Corporation, New York, NY.
- Faucett, J. (1987). **Procurement Share VS. Industry Share,** A contractor conducted investigation of the distribution of Federal Procurement within the Private Sector.

- Garvin, W. J. (1974). "Fostering Minority Business Ownership", **The Vital Majority, Small Business in The American Economy**, U. S. Government Printing Office, Washington, D. C.
- General Accounting Office (GAO), (1982). **Proposals for Minimizing The Impact of the 8(a) Program on Defense Procurement**. Comptroller General Report to the Congress. United States General Accounting Office, Document Handling and Information Service, Gaithersburg, MD.
- Grebler, Moore, and Grusman, (1971), "The Mexican-American People," **The Free Press**. New York, NY.
- Kleppe, T. S. (1974). "Introduction." **The Vital Majority, Small Business in the American Economy**. U. S. Government Printing Office, Washington, D. C., Introduction.
- Luke, John H., (1988). Testimony before the Committee on Small Business, United States Senate. February 18, 1988.
- Merriday, (1988), Interview conducted on 6 July 1988 in Atlanta, GA.
- Naval Material Command (NAVMAT), (1985). **Defense Contracting and Subcontracting with Small and Disadvantaged Business Concerns**. U. S. Government Printing Office, Washington, D. C.
- Parker, J. (1988), Interview conducted on April 21, 1988, Atlanta, GA.
- Pitman, M. (1988). Interview conducted on June 30, 1988 Atlanta, GA.
- Pyatt, E. (1987). Assistant Secretary of the Navy (Shipbuilding and Logistics), letter dated February 16, 1987.
- SBA (1984). **The State of Small Business: A Report of The President**, United States Printing Office, Washington, D.C.
- SBA (1987). **The State of Small Business, A Report of the President**. U. S. Government Printing Office, Washington, D. C.

SBA (1987), **Business Loans From the SBA**. The Small Business Administration Office of Public Communications Pamphlet OPC-6, United States Government Printing Office, Washington, D.C.

SBA Loans (1988), **How to Apply for a Loan Through the Small Business Administration**, Small Business Administration pamphlet, United States Government Printing Office, Washington, D.C.

SBA Loans, How to Apply For; (1988). A public information pamphlet, U. S. Government Printing Office, Washington, D.C.

SBA Office of Public Communication (1987). **Your Business and the SBA**, pamphlet OPC-2, U. S. Government Printing Office, Washington, D.C.

Small Business Administration, (1988). **The State of Small Business: A Report of the President**. United States Government Printing Office, Washington, D. C.

U. S. Senate (1953), Select Committee on Small Business. **The Cost and Availability of Credit to Small Businesses**, Senate Subcommittee Print No. 8, 1952.

APPENDIX A
CORRESPONDENCE

Date: 25 March 1988

From: Alan M. Wironen, LT, CEC, USN
To: Commander, Southern Division, Naval Facilities Engineering
Command, Charleston SC

Subj: IMPACTS OF SMALL BUSINESS SET ASIDE CONTRACTS ON THE
CONSTRUCTION INDUSTRY

1. As part of the masters degree requirements at Georgia Tech, I am researching the impacts that the small business set aside contracts have had on the construction industry. I would like to obtain your assistance and the cooperation of your engineering staff and ROICC personnel during the data collection phase of this project (April and May 1988).

2. I would like to visit your office to review contract records and compile a database of contract costs and durations. I will be interested in unrestricted and SBA contracts, and some contracts awarded prior to 1978 to be used as a comparison. I may also be interested in talking with your Small and Disadvantaged Business representative.

3. To make coordination easier, could an individual be assigned as my point of contact? I can be reached at:

Tel: (404) 951-8098

1049 Powers Ferry Rd.
Apt. 2600-4
Marietta, GA 30067

NROTC Unit Georgia Inst. of Tech
225 North Avenue NW
Atlanta, GA 30332

4. Any assistance you or your staff can provide will be greatly appreciated.

Very Respectfully,

Alan M. Wironen
LT, CEC, USN

Alan M. Wironen
1049 Powers Ferry Rd.
Apt 2600-4
Marietta, GA
30067
17 March 1988

Small Business Administration
Office of the Administrator
Washington, DC
20416

Dear Sir:

To partially fulfill the masters degree requirements at the Georgia Institute of Technology, I am doing research on the problems faced by small construction companies. Several of your annual publications provide statistics on small businesses as a group, however, I have had some trouble finding statistics specifically for small construction firms. Would it be possible to extract the information I need from the data used to calculate your statistics? I am looking for data that relates the failure rate of small construction firms prior to the set aside (8a) legislation, and the present.

The amount of data I require is relatively small. A count of the number of construction firms that failed (using the Dunn and Bradstreet Definition) in the years prior to, and after the legislation. Sufficient years should be looked at to provide about 40 to 50 failures. I will also need the total count of construction firms looked at, whether failed or not, corresponding to the period before and after the legislation. Additionally, if it is available, the number of years the failed firms were in operation prior to failure.

If the information requested is available, but your personnel do not have time to extract it, I can do the work myself if you'll open your records to me.

If your organization does not have the information I've requested could you forward my letter to the appropriate office. I would also appreciate a letter indicating who the point of contact is at that office.

So that I may carry on with my research a preliminary response to this inquiry by 15 April 1988 would be appreciated. I apologize for the short notice.

Sincerely,

Alan M. Wironen

Alan M. Wironen
1049 Powers Ferry RD.
Apt. 2600-4
Marietta, GA 30067
18 April 1988

Dear Sir:

I am a graduate student at Georgia Tech in the Construction Management program. As part of the Masters Degree requirement, each student must submit a research paper to the faculty. My topic is "Small Business Administration Impacts on the Construction Industry."

I am conducting a survey of the construction firms operating in the Atlanta, Georgia area, as part of the research for my paper. I would appreciate you taking a few minutes to answer the questions on the enclosed survey form, then forward it to me in the attached envelope.

Please feel free to make any clarifying remarks on the form. If you have any questions about my paper, the Small Business Administration construction involvement, or the survey form; please feel free to call me at 951-8098.

All responses to this survey will be kept in confidence. If you would prefer not to include the company name on the survey form, that would be fine, but I would like to have a telephone number in case I have questions about your responses.

Sincerely,

Alan M. Wironen
Professional Engineer

APPENDIX B
INTERVIEW SUMMARIES

CONVERSATION SUMMARY
WITH MR EUGENE MERRIDAY
LOANS AND BONDING
6 JULY 1988

1. The Small Business Investment Companies are administered from Washington, no local administrator.
2. SBIC must be licensed by the SBA to make loans. Provides additional resource for small business to receive equity and venture capital.
3. SBIC is a group of individuals and businesses that provide their own investment capital. SBA then matches their initial money.
4. SBIC loans are for any small business. Promote and foster small business profitably and with minimal losses. Loan criteria is developed by owners of SBIC and SBA application criteria.
5. Section 301(d) is a minority entrepreneur SBIC. Loans limited to minority small businesses.
6. Maximum money provided by SBA to SBIC is a ratio of 10:1, to the money provided by the SBIC founders.
7. SBIC's are for potential higher return businesses requiring higher equity needs and loan funds. More for venture capital and innovative businesses that have a high potential for growth. Two types of loans; equity loans for growth investment or loans that will be repaid.
8. Equity investment cannot exceed more than 49% of the business equity. Therefore cannot be a controlling interest in the company.
9. Who benefits from the SBIC loans since they don't usually provide small loans. Small is defined differently for each program.
10. Surety Bond Program, Small is defined as 3.5 million.
11. Interest rate and terms for SBIC's are usually higher than regular banks and SBA subsidized loans. Not much higher or it would eliminate any desire to get this loan. It is no easier to obtain an SBIC loan than a conventional loan. SBIC is supposed to profit so it will not relax its investment criteria.
12. SBA direct loans can be received from any bank. Being governed by FDIC and FSLIC makes them eligible for SBA backing, if they opt for the backing.

13. Lender has the option to have it backed by SBA or provide the loan himself, without SBA backing (Lender has first option on any loan).

14. To obtain a SBA backed loan, firm must first develop a business plan (With or without the assistance of SCORE). The lender would then either grant the loan, deny it or choose to have it backed by SBA. Borrower has no say in who provides the money.

15. Borrower must meet the banks lending criteria, SBA does not dictate the conditions of the loan. The SBA feels that the bank is in business to make money, they are therefore responsible.

16. If the bank decides to have the loan backed by SBA he must submit the loan guarantee to the SBA. The SBA has certain criteria that a loan cannot be used for:

- a. Speculative construction
- b. Rehab of private property
- c. Repayment of loans
- d. Cannot be a non-profit enterprise
- e. Newspaper or magazine
- f. Floor Plan Financing-Automobile financing
- g. Gambling
- h. Real Property held for resale or investment
- i. Speculation
- j. Lending or investment
- k. Monopoly
- l. Pyramid sales plans
- m. Illegal activity
- n. Individual whose business ownership, management or control, is by an individual who is on parole, probation or pending charges.

17. Loan terms are competitive with the private banks, otherwise Government would be in direct competition with the private banks. Banks would not be willing to lend using SBA backed loans. May loan up to \$500,000.

18. Scrutiny of credit history is the same for SBA backed loans and regular loans. Looks at principals experience, business plan, market for services, personal capital etc.

19. Direct SBA loan is received using the same procedure as standard loans, except the borrower must transfer his business plan to an SBA form, and submit it to the SBA district office. Borrower must be refused in writing by two other banks. Rationale is to eliminate direct competition for private banks. Very limited funds therefore loans are limited to a maximum of \$150,000.

20. Banks may have refused to loan money for any reason without having to be answerable for them. The SBA does have to be answerable, and so will again review the borrowers credit

history. If the risk is reasonable and the borrower is responsible, a loan may be provided. This program provides an additional source for business capital.

21. SBA in reviewing a loan application looks at:

- Business experience
- Formal Education
- Potential Market
- Credit History
- Size of Loan
- Board of Directors
- Management capability
- Business Plan

22. No easier to get a direct SBA loan than any other loan.

23. A Local Area development Company is a group of individuals, partnership, business leaders, local leadership etc, who have grouped together to promote business development in a depressed area. Provide some of their own capital usually with bank participation which is matched 60/40 by SBA.

24. Small Businesses go to the Local development company and apply for a loan. On behalf of that business and with his attendance, the business receives a loan from a local bank, the SBA then matches 40% of the loan.

25. Special Contractor Loans- For contractors who cannot finance their contracts. The SBA will guarantee 100% of a loan provided by a bank. The loan can cover only direct costs of the contract. The term of the loan is the contract period and payments are made after the receipt of the progress payments. Rates are competitive with open market. Banks normally not willing to make similar loans without SBA guarantees, because of performance risks. Again the criteria for making the loan depends on the bank. Primarily for ensuring positive cash flows on the job.

26. If a contractor goes into the red and the loan isn't paid, the SBA has a personal guarantee, so they could put a lean on the owners property.

27. May obtain many similar loans provided the total doesn't exceed \$500,000.

28. No disaster loans unless the President declares the disaster. Includes loans to businesses and private property (houses included).

29. Economic disaster loan is only for businesses who have suffered due to natural disasters.

30. Loans are monitored through the banks, by submitting loan portfolios and monthly reports. No periodic checks are made of the businesses themselves.

31. If business does not pay its loan, the SBA leaves the collection up to the bank. The SBA doesn't get involved until the bank asks for his guarantee. The bank can do this at any time regardless of the status of the loan. In this case the payments are sent to the SBA. Has the advantage of allowing the SBA to service loans up to 500,000.
32. SBA feels that the banks have more experience handling commercial loans and have been in business longer than the SBA so they should be able to handle problem loans.
33. Businesses that go belly up, the bank has two options.
1. They can liquidate the loan themselves or
 2. Request the SBA guarantee and let the government liquidate the assets.
34. SBA doesn't provide any direct bonds. The SBA guarantees payment bonds, performance bonds and bid bonds through commercial bonding companies.
35. It is substantially easier to obtain a SBA bond than commercial ones, because commercial bonding companies like to deal with firms with volumes of \$20 mil and net worth and working capital exceeding 40 million. Thus the creation of SBA bond program.
36. SBA uses the same check and underwriting criteria as commercial firms. Except requires 10:1 working capital ratio and same criteria as loan criteria (ie. owner experience etc.). For new companies the SBA looks at the firms plans and potential as well as the applicants experience.
37. Direct correlation between work on hand and working capital, therefore the SBA looks at active jobs and capability to do the work. Even if the working capital is from a bank, the SBA feels that the bank has looked at the capability of the firm.
38. SBA looks carefully at the expertise and experience of the company. ie. An electrical contractor couldn't get a bond for a plumbing contract unless he had hired expertise in plumbing.
39. After first bond is issued, the SBA may or may not review the companies capabilities, if he is applying for similar work of similar size.
40. Default and failure would very negatively affect the ability of a firm to receive a bond. Probably would not receive another bond unless the courts determined that the failure was not the contractors fault.
41. 80% guarantee for all bonds.
42. Failure is resolved by the bonding company with the SBA

providing the Guarantee only after the resolution of the claim.

43. The bonding company applies to the SBA to underwrite the bond. The bonding company agrees to comply with the SBA bond requirements. The cost of the higher risk is spread over all bond premiums

44. Bonds are usually significantly more expensive. \$24/thousand while commercial get \$14/thousand. The SBA receives \$6/thousand directly plus 20% of the surety company portfolio.

45 Sam at a local bonding company confirmed that, the SBA Guarantee bonds go through the same approval procedure and criteria as all other bonds. The SBA bonds are for small business. Commercial bonds require the company to have a high equity/working capital ratio and show a profit over the last 5 years. Since the SBA is guaranteeing that bond, the bonding company can relax these two requirements. The SBA guaranteed bonds do not present a higher risk than those of a regular commercial bonding company.

46. SBA guarantee bonds can only be issued for businesses that do not gross more than 3.5 million per year.

47. Bondability is also based on job increases of no more than 200%.

48. Competency determinations are used only by Federal Government. Based on Technical competency primarily and check that sufficient capital exists for this particular contract.

CONVERSATION SUMMARY
JAMES C. PARKER
ATLANTA SBA PROCUREMENT ASSISTANCE
21 April 1988

1. The SBA charter is to aid, counsel, and assist. The objectives are stated in the SBA act.
2. The DFAR provides laws on how to appropriate and obligate federal funds.
3. In the last 4-5 years there has been more changes to the S.B. Act than since 1959.
4. Position and Title: Deputy Assistant Regional Administrator For Procurement Assistance.
5. Provided a procurement assistant telephone directory instead of an organizational chart of the SBA.
6. National level - Office of Congressional and Legislative Affairs
 - Public Communications
 - Advocacy
 - Inspector General
 - Chief Council
 - Management and Administration
 - Comptroller
 - Information Resources Management
 - Special Programs
 - Business Development
 - Finance and Investment
 - Innovation Research and Technology
 - Procurement Assistance
 - Minority Small Business
 - Capital Ownership
 - Hearing and Appeals
 - International Trade
7. SBA has total authority to determine whether a firm is a small business.
8. Regional level- same as national level except certain programs have district offices (responsible for that state or a portion of that state). They are:
 - Minority Development
 - International Trade
 - Financial Investment
 - Business Development
9. Each office and location works independently until, a problem or specific assistance is required. So essentially each level in

the SBA works on an "interface" basis only.

10. Set aside- SBA is chartered under the law; which allows the SBA to identify contracts for which only small businesses can bid.

11. 8(a) Program is for economically and socially disadvantaged businesses. Once qualified, can be granted contracts.

12. Reviewed the appeals process. No longer set aside program for women owned businesses. They are not considered a minority. SBA does provide assistance for the women owned businesses, but not eligible for set-asides.

13. 8(a) is not considered a set aside. The 8(a) board selects a contractor for a particular contract. It is tending more toward competition but it has not reached that point yet. Contracts offered to the SBA reviewed for use in the 8(a) program. Contractor is chosen by the selection board based on the company portfolio, capability, experience, work in progress, how they have progressed through their business plan, and where they are in the 8(a) program. The SBA attempts to help the contractor progress through the program from 100% 8(a) and set aside contracts, to self marketing and only a little government assistance.

14. The loan program does not mesh with the government set aside programs, in that, it is available to any small business regardless of whether they are bidding on government contracts or not.

15. Contact District Office: Fred Stone or Johnny Jones. Get interface between district and regional office.

16. Business development personnel will provide help in establishing a new business. Margaret Pittman or Jim Hunter 347-3683.

17. Summarized what assistance was available through the SBA.

18. SBA assistance is provided to small contractors for the period that they are a small business. 8(a) program is 5 to 7 years. Graduation from the program is based on achievement and assistance period. When the company enters the program 8(a) they develop a plan which shows where they are now, where they intend to be in 5 years and an outline of how they will get there. This plan includes, \$ figure of where the firm should be income wise, production wise, and plant load. When they become self sustaining, self advertising, and achieve level production, they graduate.

19. Margaret Pittman's job is to take the 8(a) offerings and match them to the company's capabilities. Mr. Hunter takes the matched job, and contractor, and helps to negotiate the contract. He puts together the solicitation package and helps to administer the contract.

20. Non government contractor business development: Henry Pair 347-2441.

21. SBA monitors its effectiveness through PCRs a Procurement Center Representatives. SBA tracks itself by how they are aiding new businesses, giving opportunities to bid, by listing a firm on a source list. They check what % of \$ went to small business as compared to non government, for a particular region or facility.

22. May be able to get statistics on business failures through the 8(a) office, or possibly from the business development office at the district office.

23. Contracts that a set-aside are based on having at least two capable firms that can bid on the contract.

Interview Summary
Mrs. Margeret Pittman
8(a) Program
30 June 1988

1. Position is: Senior business Opportunity Specialist.
2. Become qualified for 8(a) by meeting eligibility requirements contained in Public Law 95-507 (Copy provided), and recent changes to 13 CFR 124 effective Oct 8, 1986.
3. Company must be 51% owned, daily managed, and controlled, by socially and economically disadvantaged. Must have resources adequate for procurement, management, technical assistance, and financial assistance. Must be able to perform under the SIC code for the contract offered, and must be small business.
4. To match contracts and firms, we look for capacity, (financial and bonding), experience (identical similar or related), must have been approved to perform under the SIC for the contract being offered.
5. 8(a) does not eliminate new firms from consideration. Only the Associate Administrator for Minority Small Business, Capital Ownership and Development, has the authority to eliminate a firm from consideration.
6. The Associate Administrator will find a firm ineligible if the owner and principal have had no experience performing in that SIC. This is primarily an evaluation of the firms potential for success. (item#6 on form?)
7. Six Steps in determination of eligibility.
8. Application process is in two stages. First is, what do you do. Second stage is; convincing the SBA that he can conduct and manage the particular business. This comprises the first five steps of eligibility.
9. Stage two is only filled out after the SBA has determined there is a continuing need for firms in that SIC. Contracting Agencies will submit weekly, monthly or quarterly lists of pending contracts.
10. Once determined that a SIC is needed, then stage two looks at the capability of the firm, capacity (bonding and financial), experience, location of work, approved support level.
11. All contractors with this SIC capability are given equal consideration for each job. The contractor is then matched to the items listed in #10 to make a selection for the particular job.

12. 8(a) is only open to minority owned or operated businesses. The award is then given to contractors according to a priority list.
13. Once in the program the firm must develop a business plan. Includes where he plans to be and how to get there.
14. The 8(a) firm is assisted in staying on his plan through the SBA programs and through consultants contracted by SBA to help resolve specific problems.
15. If a contractor has an identifiable problem the SBA will provide assistance in overcoming the problem through contracted consultant services or in house assistance. Provided only for the period of the problem.
16. SBA will not provide continuous assistance to a firm, since the contractor has contracted to perform the work. It would be like SBA paying the contractor for not doing anything. The contractor must also maintain his eligibility status while in the 8(a) program (i.e. remain small and minority owned).
17. The goal is not to develop big business from small ones. If a contractor does not perform in accordance with his business plan, the SBA will provide assistance as necessary, but if he still does not perform, the plan will be revised.
18. Conditions for termination include continued inadequate performance.
19. Contracting agency has the authority to accept or reject a recommended contractor, but the SBA can appeal to the head of the agency. Usually, the contracting officer simply states he wants a different contractor, because the recommended one did not perform adequately on a previous contract.
20. Graduation is simply completing the 6 year assistance program. (7 years if an extension is approved)
21. Completion is when a firm becomes big business, or performs his business plan, and there is no higher target that he wishes to achieve. If there is an additional goal, the contractor may revise his business plan and continue in the program.
22. The program period begins at the time of the first contract award and extends for five years. The contractor may, at the end of the 5th year, request an extension up to the end of the 7th year.
23. The contractor may perform the contract awarded at the end of the program period and all options on it, but will not receive any additional 8(a) contracts.
24. The contractors are given a heavy load of SBA contracts at

first, and weaned as the assistance period progresses. The first contract is usually a simple one.

26. 8(a) firms are tracked after graduations by the central office.

SUMMARY OF DISCUSSION
WITH
KEN DAUGHERTY
NORTHDIV DEPUTY FOR SMALL BUSINESS
16 June 1988

1. Provided summary of what is to be studied.
2. Problems Ken sees with topic:
Each contract has a specified completion date
No database would be able to provide data that would
compare completion dates. Possibly look at liquidated
damages.
3. Provided a database of small and large business bid data.
4. Position is: Labor relations specialists and deputy for small
business.
5. SBA goals are to promote awards to small and small
disadvantaged sectors.
6. SBA doesn't track the number of contractors. It does track
the number of contracts and \$. Industry is too easily entered or
exited to track contractors.
7. 85% of contracts in construction industry are set aside for
small business.
8. It is the exception to advertise as non set-asides, if the
contract is under 2 mil dollars. Over \$2 mil, the contracts are
reviewed on a case by case basis. If it can reasonably be
expected that we will get a fair market value, and more than two
bidders are interested, then the contract will be set aside for
small business.
9. Contracts not advertised for small business require
justifications for not going to small business.
10. Procurement of over \$2 million are hard to get small
business to bid on (bid climate), so may allow sole source or
unrestricted advertisement.
11. Specialty equipment such as generators that were made by a
specific company, with unique parts, are advertised unrestricted
or sole source.
12. All non small business advertisements require concurrence of
the SA at the regional level.
13. Each buying activity has a procurement center representative
(Regional level SA person)

14. Each activity may identify which contracts they want to set aside for 8(a). Based on the number of available contractors, available acquisition, lead time, and complexity of the procurement.

15. Another method of setting aside 8(a) contracts, is through search letters. SA asks for a specific contract for a specific contractor. Pertinent information is compiled by the SA and forwarded to the contract specialists, and contract manager, for their opinion. Some conflicts with other contractors result due to this process.

16. 8(a) participation is for a period of five to six years, or until they become large business.

17. If incapable of operating without SA assistance, the contractor must ask the SA to remain in the program.

18. After graduation, the SA does track businesses that have graduated from the program. (Unable to provide a point of contact.)

19. Has experienced several abuses of the system. Many fraudulent attempts to obtain set asides.

DISCUSSION
WITH
B. J. KOEJLER
PHILADELPHIA PCR
16 June 1988

1. Nobody keeps track of businesses after graduation from the 8(a) program.
2. The district office will monitor the 8(a) contractors while they are in the program.
3. If a company goes bankrupt while in the 8(a) program, the SBA will do an analysis of why.
4. The SBA is there to keep the company from going belly up. Does not recall any businesses going belly up while in the program, unless they got into legal trouble.
5. Most failures occur within two years due to poor management.
6. No abuses of the Set-Aside program they are aware of since, it is difficult to manipulate the system when several contractors are involved.
7. Contract brokering to large business isn't likely now, since the prime must do 25% and must reveal that he intends to let out some of the work. The subcontracted work must also be accomplished with a small business firm.
8. When the 8(a) program first started, the program left itself wide open to abuses such as front companies. Now with the 50% and 25% rules, the small contractor is the person who will be doing the work, not some other contractor.
9. Figure head companies representing an 8(a) contractor still happen, but it is difficult to prove. More common is the case where a legitimate 8(a) company will front the work for a non 8(a), or large company.
10. Prices of work can be influenced by Davis Bacon wages over a time period.

DISCUSSION
WITH
DELORES O'MALLY
CONTRACT SPECIALIST
16 June 1988

1. The SBA doesn't provide any assistance to contractors and especially not to those persons administering the contracts.
2. Somebody should define their role and how it relates to our goals.
3. NAVFAC has a better record of giving work to small business than any other agency.
4. The SBA gets involved in debarment because they are assisting the contractors? No, they don't assist the contractors. If they had been involved with the contractors more and provided some assistance, they wouldn't get into trouble.
5. The SBA dictates, without regard to capability, who will get what 8(a) contract. The SBA tends to provide 8(a) contractors with MILCON (larger jobs), rather than match the job to the firm's capability and experience. A better method would be to try to match the 8(a) contractor with a job that meets their capability.
6. The SBA doesn't want to be involved with financially insolvent contractors. The loans the SBA is providing are given to companies that can be underwritten, not to those that need management assistance and money to get back on their feet.

APPENDIX C
CONSTRUCTION INDUSTRY
COMPOSITION

* COMPOSITION OF SMALL CONTRACTORS

Figure 1-3: Census data and size standards of
\$25 and \$9.5 million, which roughly corresponds to the 500
size standards for small contractors

NOTE: Individual data does not add up to the total due to no
in the census bureau data

	1967	1971	1977	1981
1. General Contractors	34.68	35.17	35.11	32.61
2. Specialty Contractors	55.85	51.81	55.49	54.81
3. Other Small Contractors	1.64	1.71	1.12	1.03
4. Large Contractors	1.83	1.19	.27	1.19
Total Small Contractors	93.45	87.91	90.71	88.71

* Others include cooperative outlayers and developers

* EMPLOYMENT OF SMALL CONTRACTORS

Figure 1-4: Census data and size standards of
\$25 and \$9.5 million, which roughly corresponds to the 500
size standards for small contractors

NOTE: Individual data does not add up to the total due to no
in the census bureau data

	1967	1971	1977	1981
1. General Contractors	31.71	31.49	31.69	29.69
2. Specialty Contractors	39.69	41.91	41.91	44.64
3. Other Small Contractors	19.91	24.49	31.61	29.41
4. Large Contractors	1.17	1.61	1.09	1.09
Total Small Contractors	89.71	99.77	99.71	99.71

* Others include cooperative outlayers and developers

CHANGE IN NUMBER OF SMALL FIRMS

Table 1.1. Census data and size standard of \$17 million, which roughly corresponds to the 500 size standard for small general contractors

	1967	1971	1977	1981
All General Contractors	108042	107048	107268	107167
Large General Contractor	1000	1004	4000	2000
Small General Contractor	107042	106044	103268	105167
% Small General Contractor	99.71	99.66	97.71	98.71

CHANGE IN EMPLOYMENT IN SMALL FIRMS

Table 1.2. Census data and size standard of \$17 million, which roughly corresponds to the 500 size standard for small general contractors

	1967	1971	1977	1981
All General Contractors	1088102	1078888	1087001	1048784
Large General Contractor	688407	608711	674011	748871
Small General Contractor	1100005	1047188	1020000	1000000
% Small General Contractor	99.99	99.99	99.99	99.99

CHANGE IN EMPLOYMENT IN SMALL SPECIALTY CONTRACTORS

Table 1.3. Census data and size standard of \$0.5 million, which roughly corresponds to the 500 size standard for small specialty contractors

	1967	1971	1977	1981
All Specialty Contractors	1000000	1000000	1000000	1000000
Large Specialty Contractor	100000	100000	100000	100000
Small Specialty Contractor	1000000	1000000	1000000	1000000
% Small Specialty Contractor	100.00	100.00	100.00	100.00

CHANGE IN NUMBER OF SMALL SPECIALTY CONTRACTORS

Footnote: 1. Census data and size standards of \$2.5 million which roughly corresponds to the 100 size standard for small specialty contractors

	1967	1970	1977	1980
All Specialty Contractors	107,69	100,990	107,971	109,403
Large Specialty Contractor	1004	1074	1006	1049
Small Specialty Contractor	1,7405	1,00709	1,00004	1,00460
% Small Specialty Contract	99.94	99.99	99.97	99.95

CHANGE IN NUMBER OF SMALL CONTRACTORS

Footnote: 1. Census data and size standards of \$25 and \$5 million which roughly correspond to the 100 size standard for small contractors

	1967	1970	1977	1980
All Contractors	100,071	107,041	100,014	100,071
Large Contractors	1000	1000	1000	1000
Small Contractors	100,071	100,000	100,000	100,000
% Small Contractors	99.99	99.99	99.97	99.99

CHANGE IN EMPLOYMENT BY SMALL CONTRACTORS

Footnote: 1. Census data and size standards of \$25 and \$5 million which roughly correspond to the 100 size standard for small contractors

	1967	1970	1977	1980
All Contractors	1,000,000	1,000,000	1,000,000	1,000,000
Large Contractors	1,000,000	1,000,000	1,000,000	1,000,000
Small Contractors	1,000,000	1,000,000	1,000,000	1,000,000
% Small Contractors	100.00	100.00	100.00	100.00

APPENDIX D
CONSTRUCTION BUSINESS
SURVEY SUMMARY

CONSTRUCTION SURVEY

RESULTS

-April 1988 initial survey of 100 mailed questionnaires:

56 Responses received

14 Classified as large general contractors

4 Classified as Large specialty contractors

-May 1988 and June 1988 telephone survey conducted with 100 firms contacted.

45 Responses received

8 Classified as large general contractors

6 Classified as large specialty contractors

-Total responses by small contractors 69

63 General contractors

6 Specialty contractors

-All contractors were listed on the Atlanta Builders Exchange membership list or the Atlanta AGC listing.

-Survey results show that none of the firms were publicly held companies.

QUESTIONS (Numbers correspond to the survey form questions)	NUMBER OF YES RESPONSES	AVERAGE %
6. Are you a minority owned firm?	0	0.0
7. Do you work on Federal Contracts?	24	34.7
8. Have you owned or managed another firm?	21	30.4
8a. Is the firm still in business?	12	17.4
9. Does your present firm use Federal Government assistance?	6	8.7
10. Where you aware that the Small Business Administration provided the following? Has your firm used it?		
a. Guarantee loans	40 /0	60.0/0.0
b. Management Training ...		
Seminars	27 /3	39.1/4.3
Lectures	28 /3	40.5/4.3
Classroom	27 /3	39.1/4.3
Publications	21 /6	30.4/8.6
c. Management assistance and organization	21 /0	30.4/0.0
d. Small Business Set-Asides	39 /0	56.5/0.0
e. 8(a) Contracts	41 /0	59.4/0.0
f. Dispute Settlement	18 /1	26.1/1.4
g. Bonding	40 /6	60.0/8.6

BUSINESS ASSISTANCE QUESTIONNAIRE

1. NAME OF ORGANIZATION:
2. NUMBER OF EMPLOYEES:
3. GROSS EXCEED 17 MILLION: yes no
GROSS EXCEED 7 MILLION: yes no
4. HOW OLD IS YOUR FIRM:
5. WHAT TYPE OF CONTRACTOR ARE YOU (GENERAL, SPECIALTY):
 - a. ARE YOU A PRIVATE FIRM: public private
6. ARE YOU A MINORITY OWNED COMPANY: yes no
7. DO YOU WORK ON FEDERAL GOVERNMENT CONTRACTS:
8. HAVE YOU OWNED OR MANAGED ANY OTHER FIRMS: yes no
 - a. ARE THESE FIRMS STILL IN BUSINESS: yes no
 - b. ARE THE FIRMS PUBLIC OR PRIVATELY HELD: public private
 - c. NAME AND ADDRESS OF THE FIRMS:
 - d. AGE AT FAILURE:
 - e. YEAR OF FAILURE:
 - f. DID THIS FIRM USE ANY OF THE ASSISTANCE PROGRAMS
PROVIDED BY THE SMALL BUSINESS ADMINISTRATION: yes no
9. HAS YOUR PRESENT FIRM USED GOVERNMENT ASSISTANCE: yes no
 - a. WHAT TYPE:
10. WHERE YOU AWARE THAT THE SMALL BUSINESS ADMINISTRATION HAS
THE FOLLOWING PROGRAMS, HAVE YOU USED ANY OF THE PROGRAMS:
 - a. GOVERNMENT GUARANTEE LOANS: yes no yes no
 - b. MANAGEMENT TRAINING IN THE FORM OF:
 1. SEMINARS: yes no yes no
 2. LECTURES: yes no yes no

3. CLASSROOM TRAINING: yes no yes no

4. PUBLICATIONS: yes no yes no

c. MANAGEMENT ASSISTANCE AND ORGANIZATION:

 yes no yes no

d. CONTRACTS SET ASIDE FOR COMPETITION AMONG ONLY SMALL

BUSINESSES: yes no yes no

e. CONTRACTS WHICH CAN BE AWARDED TO QUALIFYING SMALL

MINORITY OWNED BUSINESSES, WITHOUT COMPETITION.

 yes no yes no

f. ASSISTANCE IN OBTAINING CONTRACTS AFTER THE CONTRACTING
OFFICER HAS DETERMINED THAT A FIRM CANNOT BE RESPONSIVE.

 yes no yes no

g. ASSISTS IN OBTAINING BONDING FOR SMALL FIRMS WHICH HAVE
HAD A QUESTIONABLE PERFORMANCE HISTORY.

 yes no yes no

APPENDIX E
CONTRACTOR BIDDING RECORD

TITLE II CONTRACTORS BIDDING RECORD

FROM NORTH DIV SBA DATA 1981-1988

- Eliminated all bids not confirmed to be from Title II Contractors
- Eliminated all B(a) Contractor bids
- 104 Contracts
- 413 Individual Bids averaged
- CONTRACTS IN EXCESS OF \$10,000

$$n = 413 \quad \sum x^2 = 2313118$$

$$\sum x = 10630 \quad (\sum x)^2 = 112996900$$

$$\bar{x} = \frac{10630}{413} = +25.73\% \quad \text{Above Gov't Estimates}$$

$$s^2 = \frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1} = \frac{2313118 - \frac{112996900}{413}}{412}$$

$$s^2 = 4950.28$$

$$s = 70.35\%$$

BID PRICE
ABOVE OR BELOW
GOV'T ESTIMATE

- ALL CONTRACTS ARE IN EXCESS OF \$10,000
- Eliminated all awards to non-Title II firms
- 75 Contracts
- 75 Awards Averaged } n was limited by the # of Title II awards recorded in the database.

$$n = 75 \quad \sum x^2 = 88036$$

$$\sum x = 510 \quad (\sum x)^2 = 260100$$

$$\bar{x} = \frac{510}{75} = +6.8\% \quad \text{Above Gov't Estimate}$$

$$s^2 = \frac{88036 - \frac{260100}{75}}{74} =$$

$$s^2 = 1142.81$$

$$s = 33.81\%$$

AWARD PRICE
ABOVE OR BELOW
GOV'T ESTIMATE

AVERAGE CONTRACT PRICE = \$1.7 Million

BA
CONTRACTORS
BIDDING RECORD

FROM: NORTH DIV SEA DATA 1981-1988

- ELIMINATED ALL NON BA BIDS
- ELIMINATED ALL UNCONFIRMED BA CONTRACTORS
- 33 INDIVIDUAL BIDS AVERAGED
- 20 CONTRACTS
- AVERAGE CONTRACT PRICE WAS \$1.2 Million.
- ALL CONTRACTS ARE IN EXCESS OF \$10,000

$$n=33$$

$$\sum x^2 = 472994$$

$$\sum x = 2478$$

$$(\sum x)^2 = 6140484$$

$$\bar{x} = \frac{2478}{33} = 75.1\% \text{ above the Gov't Estimate}$$

$$s^2 = \frac{472994 - \frac{6140484}{33}}{32}$$

$$s^2 = 8966.2$$

$$s = 94.7\%$$

BID PRICE
ABOVE OR BELOW
GOV'T ESTIMATE

- ELIMINATED ALL NON B(A) AWARDS
- 12 AWARDS AVERAGED *
- AVERAGE CONTRACT PRICE WAS
- ALL CONTRACTS ARE IN EXCESS OF \$10,000

$$n=12$$

$$\sum x^2 = 1069$$

$$\sum x = 97$$

$$(\sum x)^2 = 9409$$

$$\bar{x} = \frac{97}{12} = 8.08\% \text{ Above the Gov't Estimate}$$

$$s^2 = \frac{1069 - \frac{9409}{12}}{11} = 25.9$$

$$s^2 = 25.9$$

$$s = 5.09$$

AWARD PRICE
ABOVE OR BELOW
GOV'T ESTIMATE

* MOST OF THE B(A) BIDS WERE SO FAR FROM THE GOV'T ESTIMATE THAT THE CONTRACTS WERE READVERTISED AS TITLE II OR UNRESTRICTED CONTRACTS.

OPEN COMPETITION BIDDING RECORD

FROM: NORTHERN DIVISION SBA DATA 1981-1988

- CONTRACTS IN EXCESS OF \$10,000
- CONTRACTS CONSIDERED INCLUDE SET-ASIDE CONTRACTS BID ON IN ERROR BY LARGE CONTRACTORS AND UNRESTRICTED CONTRACTS BID ON BY SMALL FIRMS
- PROVIDES THE OPPORTUNITY TO MAKE DIRECT COMPARISONS WITH THE TITLE II AND 8(a) BIDDING RECORDS
- ALL DATA IS FROM THE SAME DATABASE AS THE 8(a) AND TITLE II ANALYSIS.
- 20 CONTRACTS
- 46 BIDS AVERAGED.
- 11 AWARDS MADE TO BIG BUSINESS OF THE 20 CONTRACTS.

$$n=46$$

$$\sum x^2 = 69635$$

$$\sum x = 289$$

$$(\sum x)^2 = 83521$$

$$\bar{x} = \frac{289}{46} = 6.28\% \text{ Above the Gov't Estimate}$$

$$s^2 = \frac{69635 - \frac{83521}{46}}{45}$$

$$s^2 = 1507.1$$

$$s = 38.8\%$$

$$n=11$$

$$\sum x^2 = 9413.0$$

$$\sum x = -177$$

$$(\sum x)^2 = 31329$$

$$\bar{x} = \frac{-177}{11} = -16.1\% \text{ Below the Gov't Estimate}$$

$$s^2 = \frac{9413 - \frac{31329}{11}}{10} = 656$$

$$s = 25.6\%$$

BID PRICE
ABOVE OR BELOW
GOV'T ESTIMATE

AWARD PRICE
ABOVE OR BELOW
GOV'T ESTIMATE

BIOLOGICAL AND AVIAN RECORD
Northern Division NAWFAC SEA database

<u>CONTRACT#</u>	<u>OFFEROR</u>	<u>E</u>	<u>S O B</u>	<u>BIC</u>	<u>SOV'T EST</u>	<u>AWARD PRICE</u>	<u>% OF GOVT</u>	<u>% OF AIA</u>
						\$1,172,000.00	ERROR	-100
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
							ERROR	ERROR
	MCCOY SERV Y			\$496,894.75			ERROR	ERROR
81-B-0290	C R KLEW Y			\$11,515,474.00	\$12,280,000.00	\$11,271,000.00	-3	6
81-B-0290	J S NABBI Y			\$11,271,000.00	\$11,280,000.00	\$11,271,000.00	-8	0
81-B-0290	VINCE, INC Y			\$12,189,000.00	\$12,280,000.00	\$11,271,000.00	-1	8
81-B-0290	A F LUBI E Y			\$4,297,000.00	\$3,567,000.00	\$4,121,737.00	19	6
81-B-0290	MARON CONS Y			\$4,206,704.00	\$3,567,000.00	\$4,121,737.00	18	2
81-B-0290	SWEPID COR Y			\$4,543,814.00	\$3,567,000.00	\$4,121,737.00	27	10
81-B-0400	A J NABBI			\$10,570,000.00	\$3,525,000.00		32	ERROR
81-B-0400	ELINDERMAY Y			\$15,135,115.00	\$3,525,000.00		59	ERROR
81-B-0400	G ELINDOV Y			\$14,383,000.00	\$3,525,000.00		50	ERROR
81-B-0400	JENNINE S H			\$12,073,000.00	\$3,525,000.00		27	ERROR
81-B-0400	MARINO CON			\$15,740,000.00	\$3,525,000.00		44	ERROR
81-B-0400	WELSH CONS			\$10,454,756.00	\$3,525,000.00		31	ERROR
81-B-0415	CONSOLIDAT Y			\$1,367,718.00	\$861,000.00		55	ERROR
81-B-0415	H J SOOPB Y			\$1,188,000.00	\$861,000.00		35	ERROR
82-B-0245	M G AVING Y			\$977,400.00	\$741,292.00	\$1,028,700.00	32	-5
82-B-0245	NORTH AMER Y			\$1,008,700.00	\$741,292.00	\$1,028,700.00	53	0
82-B-0245	SWEEPED COR Y			\$1,095,000.00	\$741,292.00	\$1,028,700.00	48	7
82-B-0251	ALFRED J Y			\$245,526.00	\$361,092.00	\$245,526.00	-32	0
82-B-0251	BARNES ELE Y			\$263,140.00	\$361,092.00	\$245,526.00	-32	15
82-B-0251	CARR & DUF Y			\$250,754.00	\$361,092.00	\$245,526.00	-31	2
82-B-0251	PAY ANGELI Y			\$0.00	\$361,092.00	\$245,526.00	-100	-100
82-B-0251	UNITED CON Y			\$321,670.00	\$361,092.00	\$245,526.00	-11	31
82-B-0251	HESSOTT EL Y			\$269,317.00	\$361,092.00	\$245,526.00	-20	19
82-B-0251	Seaboard E Y	N		\$261,000.00	\$361,092.00	\$245,526.00	-22	14
82-B-0310	advanced m Y			\$4,577,000.00	\$1,083,000.00		350	ERROR
82-B-0310	TEL-STOCK Y			\$4,257,000.00	\$1,083,000.00		297	3
82-B-0310	DANLADI CO Y	Y		\$3,283,000.00	\$1,083,000.00		263	ERROR
83-B-0013	E E MURRY N			\$16,112,154.00	\$16,000,000.00	\$13,451,000.00	-10	20
83-B-0013	H B ALEXAN N			\$13,451,000.00	\$16,000,000.00	\$13,451,000.00	-25	0
83-B-0013	RFIELD CC N			\$15,840,200.00	\$16,000,000.00	\$13,451,000.00	-12	18
83-B-0013	FITTER ERG N			\$14,653,800.00	\$16,000,000.00	\$13,451,000.00	-17	10
83-B-0061	G P. PALAM Y			\$1,223,441.00	\$951,000.00	\$1,223,441.00	29	0
83-B-0067	ARNOLD M D Y			\$520,505.00	\$1,685,000.00		-45	ERROR
83-B-0067	G I C ENTE Y			\$1,062,000.00	\$1,685,000.00		-35	ERROR

CONTRACT	OFFERER	EST. #	EST. DATE	EST. PRICE	EST. PRICE	AVG. PRICE	OF GDN	% OF GDN
00-B-0067	HUTCHINSON	1		\$1,034,969.00	\$1,669,000.00		-83	ERROR
00-B-0067	JOE EBER	1		\$1,010,000.00	\$1,669,000.00		-40	ERROR
00-B-0067	MICHAEL F	1		\$2,478,000.00	\$1,669,000.00		47	ERROR
00-B-0067	NOVA GROUP	1		\$1,168,000.00	\$1,669,000.00		-29	ERROR
00-B-0067	PAUL J EBER	1		\$1,294,000.00	\$1,669,000.00		-23	ERROR
00-B-0067	RUTLER CON	1		\$778,000.00	\$1,669,000.00		-54	ERROR
00-B-0068	ARNOLD W D	1		\$1,164,000.00	\$2,669,000.00	\$1,172,000.00	-56	1
00-B-0068	G & C ENTER	1		\$1,290,000.00	\$2,669,000.00	\$1,172,000.00	-51	1
00-B-0068	HIGH BROTH	1		\$1,409,000.00	\$2,669,000.00	\$1,172,000.00	-47	21
00-B-0068	MICHAEL F	1		\$3,646,000.00	\$2,669,000.00	\$1,172,000.00	87	211
00-B-0068	NOVA GROUP	1		\$1,469,000.00	\$2,669,000.00	\$1,172,000.00	-44	27
00-B-0068	PHILLIPS-HIF			\$1.00	\$2,669,000.00	\$1,172,000.00	-100	-100
00-B-0068	RUTLER CON	1		\$1,172,000.00	\$2,669,000.00	\$1,172,000.00	-56	0
00-B-0069	ARNOLD W D	1		\$1,429,021.00	\$2,679,000.00	\$1,429,021.00	-50	0
00-B-0069	G & C ENTER	1		\$1,449,000.00	\$2,679,000.00	\$1,429,021.00	-50	1
00-B-0069	JAMES F CO	1		\$2,778,000.00	\$2,679,000.00	\$1,429,021.00	-4	84
00-B-0069	JOE EBER	1		\$1,769,000.00	\$2,679,000.00	\$1,429,021.00	-39	23
00-B-0069	KOB VAM IN	1		\$4,479,000.00	\$2,679,000.00	\$1,429,021.00	58	213
00-B-0069	MICHAEL F	1		\$3,409,000.00	\$2,679,000.00	\$1,429,021.00	19	140
00-B-0069	NOVA GROUP	1		\$1,669,000.00	\$2,679,000.00	\$1,429,021.00	-42	18
00-B-0069	PAUL J EBER	1		\$2,164,000.00	\$2,679,000.00	\$1,429,021.00	-24	54
00-B-0069	PHILLIPS-HIF			\$1.00	\$2,679,000.00	\$1,429,021.00	-100	-100
00-B-0069	REITER CON	1		\$1,499,000.00	\$2,679,000.00	\$1,429,021.00	-48	4
00-B-0115	HEF ELEVA	1		\$789,370.00	\$369,000.00		104	ERROR
00-B-0115	WESTLEY SM	1		\$599,000.00	\$369,000.00		59	ERROR
00-B-0161	F J ERMID	1		\$197,019.00	\$129,000.00	\$149,961.00	60	32
00-B-0161	ANGELINE C	1		\$199,084.00	\$129,000.00	\$149,961.00	87	13
00-B-0161	ATLANTIC C	1		\$209,100.00	\$129,000.00	\$149,961.00	190	89
00-B-0161	DER CONTE	1		\$169,000.00	\$129,000.00	\$149,961.00	31	7
00-B-0161	DRIVE-IN C	1		\$149,961.00	\$129,000.00	\$149,961.00	22	0
00-B-0161	HAMILTON C	1		\$209,459.00	\$129,000.00	\$149,961.00	66	92
00-B-0161	JARRO ELOS	1		\$169,061.00	\$129,000.00	\$149,961.00	39	9
00-B-0161	PER CONTE	1		\$169,000.00	\$129,000.00	\$149,961.00	27	4
00-B-0161	MONTAGNE C	1		\$269,000.00	\$129,000.00		116	ERROR
00-B-0161	FULLAR IDI			\$164,144.00	\$129,000.00	\$149,961.00	50	2
00-B-0161	BEVILLE CO	1		\$269,169.00	\$129,000.00	\$149,961.00	109	69
00-B-0161	WEISS L RD	1		\$292,086.00	\$129,000.00	\$149,961.00	85	59
00-B-0191	FLOORFPA C	1		\$69,111.00	\$69,000.00	\$69,000.00	35	2
00-B-0191	HAKATON EE	1		\$147,000.00	\$69,000.00	\$69,000.00	183	116
00-B-0191	URNE CO IN	1		\$69,000.00	\$69,000.00	\$69,000.00	79	37
00-B-0191	MASHUY INC	1		\$69,409.00	\$69,000.00	\$69,000.00	63	40
00-B-0191	RICHARD DE	1		\$197,000.00	\$69,000.00	\$69,000.00	279	190</

CONTRACT#	OFFEROR	SB	EST	EST	CON'T EST	AWARD PRICE	% OF CON'T	% OF AVE
83-B-0605	SNEPCO COR	?		\$392,000.00	\$614,142.00	\$669,767.00	45	38
83-B-0609	DONATO SPA	Y		\$628,000.00	\$913,000.00	\$773,000.00	-10	6
83-B-0609	MAGNUM INC	Y		\$377,000.00	\$913,000.00	\$773,000.00	-5	13
83-B-0609	MARTELL CO	Y		\$773,000.00	\$913,000.00	\$773,000.00	-15	0
83-B-0609	R G RIFFER	Y		\$876,129.00	\$913,000.00	\$773,000.00	-5	12
83-B-0632	MARTELL CO	Y		\$202,000.00	\$111,000.00		82	ERROR
83-B-0692	FRAUGHT CO	Y		\$377,300.00	\$111,000.00	\$227,000.00	240	66
83-B-0692	RANDO CONS	Y		\$227,000.00	\$111,000.00	\$227,000.00	105	0
83-B-0604	?????? BR	?		\$4,527,000.00	\$6,584,000.00	\$4,360,000.00	-31	4
83-B-0604	ARTCO CONT	Y		\$4,659,601.00	\$6,584,000.00	\$4,360,000.00	-23	7
83-B-0604	AUDIO CENT	?		\$24,950.00	\$6,584,000.00	\$4,360,000.00	-100	-93
83-B-0604	GERACE CON	Y		\$4,700,000.00	\$6,584,000.00	\$4,360,000.00	-23	8
83-B-0604	SPENCE BRD	Y		\$4,527,000.00	\$6,584,000.00	\$4,360,000.00	-31	4
83-B-0604	THE CRISTN	N		\$4,516,000.00	\$6,584,000.00	\$4,360,000.00	-31	4
83-B-0604	THE GERACE	Y		\$4,450,000.00	\$6,584,000.00	\$4,360,000.00	-32	2
83-B-0617	ANDERSON B	Y	Y	\$767,000.00	\$521,385.00		47	ERROR
83-B-0617	CONTRACTIN	Y	Y	\$3,100,000.00	\$521,385.00		495	ERROR
83-B-0617	ESTES CONE	Y	Y	\$2,000,000.00	\$521,385.00		284	ERROR
83-B-0617	H & J PLUM	Y	Y	\$721,000.00	\$521,385.00		38	ERROR
83-B-0617	HENRY R S	Y	Y	\$909,900.00	\$521,385.00		74	ERROR
83-B-0617	INTERSTATE	Y	Y	\$511,700.00	\$521,385.00		88	ERROR
83-B-0620	E C I CONS	Y		\$3,311,135.00	\$3,269,500.00	\$3,200,000.00	1	3
83-B-0620	McINTURE B	Y		\$4,271,810.00	\$3,269,500.00	\$3,200,000.00	31	38
83-B-0620	FLOWER L SD	Y		\$3,687,000.00	\$3,269,500.00	\$3,200,000.00	13	15
83-B-0620	WEDDLE BRD	Y		\$3,200,000.00	\$3,269,500.00	\$3,200,000.00	-2	0
83-B-0645	BORO DEVEL	Y		\$1,616,000.00	\$1,458,000.00	\$1,616,000.00	11	0
83-B-0645	MARTELL CO	Y		\$2,094,000.00	\$1,458,000.00	\$1,616,000.00	44	50
83-B-0645	FRANSH IN	Y		\$1,677,764.00	\$1,458,000.00	\$1,616,000.00	16	4
83-B-0645	RIFFER INC	Y		\$1,762,129.00	\$1,458,000.00	\$1,616,000.00	21	9
83-B-0649	BORO DEVEL	Y		\$8,211,593.00	\$8,353,000.00		29	ERROR
83-B-0609	ABO ENTERP	Y		\$446,895.00	\$510,100.00	\$446,895.00	-12	0
83-B-0609	CO FIELD &	Y		\$1,000,000.00	\$510,100.00	\$446,895.00	96	124
83-B-0609	DANN BUILD	Y		\$496,865.00	\$510,100.00	\$446,895.00	-3	11
83-B-0609	LOEFFEL EN	Y		\$1,000,000.00	\$510,100.00	\$446,895.00	96	124
83-B-0609	M G ASTLEF	Y		\$5,060,000.00	\$510,100.00	\$446,895.00	696	1037
83-B-0609	HAERTENS-E	Y		\$1,500,000.00	\$510,100.00	\$446,895.00	194	236
83-B-0609	MORCON CON	Y		\$466,590.00	\$510,100.00	\$446,895.00	-9	4
83-B-0609	PHILLIPS P	?		\$1,000,000.00	\$510,100.00	\$446,895.00	96	124
83-B-0609	S L & H CO	Y		\$456,600.00	\$510,100.00	\$446,895.00	-10	2
83-B-0649	MID-CON IN	Y		\$250,000.00	\$141,895.00		76	ERROR
83-B-0649	R.W. EDGAR	Y		\$300,000.00	\$141,895.00		111	ERROR
83-B-0665	JAMES MANF	Y		\$1,484,900.00	\$912,200.00	\$878,685.00	63	69
83-B-0665	KNICKEFEED	Y		\$1,394,000.00	\$912,200.00	\$878,685.00	53	59
83-B-0665	KOVILIC CO	Y		\$627,493.00	\$912,200.00	\$878,685.00	2	6
83-B-0665	RO-MAR CON	--		\$878,685.00	\$912,200.00	\$878,685.00	-4	0
83-B-6395	GRAVES PLU	Y		\$661,681.00	\$862,823.00	\$661,681.00	-21	0
83-B-6395	HARRELL ME	Y		\$709,954.00	\$862,823.00	\$661,681.00	-18	4
83-B-6395	DREEN GEN	Y		\$754,000.00	\$862,823.00	\$661,681.00	-12	11
83-B-6395	TRIANGLE L	Y		\$774,515.00	\$862,823.00	\$661,681.00	-10	14
84- -4846	SCHAEFFER	Y		\$51,515.00	\$76,053.00		-32	ERROR
84- -4846	THREE-WAY	Y		\$42,852.00	\$76,053.00		-44	ERROR
84-B-0006	AMERICAN C	Y		\$1,663,632.00	\$1,492,465.00	\$1,366,000.00	27	36

CONTRACT#	OFFEROR	SS	BID	GOVT EST	AWARD PRICE	% OF GOVT	% OF AWA
04-E-0003	CEI	Y	\$1,481,000.00	\$1,481,465.00	\$1,566,000.00	-5	4
04-E-0003	B & B ELEC	N	\$1,011,950.00	\$1,481,465.00	\$1,566,000.00	15	25
04-E-0003	BRIDGE INC	N	\$1,366,000.00	\$1,481,465.00	\$1,566,000.00	-5	0
04-E-0003	DANLAD CO	N	\$1,703,000.00	\$1,481,465.00	\$1,566,000.00	17	25
04-E-0003	DIXIEGRAPH	Y	\$1,335,000.00	\$1,509,117.00		35	ERROR
04-E-0003	E & C ENTER	N	\$1,746,000.00	\$1,509,117.00		5	ERROR
04-E-0003	GAUNT CO	Y	\$1,733,000.00	\$1,509,117.00		9	ERROR
04-E-0003	REITER CON	--	\$1,117,000.00	\$306,125.00	\$1,117,000.00	23	0
04-E-0003	-----	--	\$0.00	\$0.00	\$0.00	0	0
04-E-0004	GARR & DUF	Y	\$371,600.00	\$365,561.00		43	ERROR
04-E-0004	HEATHER HAR	Y	\$371,600.00	\$365,561.00		-4	ERROR
04-E-0004	MATTELL CO	Y	\$433,800.00	\$365,561.00		12	ERROR
04-E-0004	RAVENS CON	Y	\$333,600.00	\$365,561.00		-14	ERROR
04-E-0004	SEABARD E		\$337,000.00	\$365,561.00		0	ERROR
04-E-0004	SCOTT BL	N	\$463,440.00	\$365,561.00		21	ERROR
04-E-0003	SLA ELEC	N	\$1,533,600.00	\$2,818,860.00	\$2,637,000.00	-6	25
04-E-0003	WATERFRONT	N	\$1,453,600.00	\$1,518,561.00	\$1,637,000.00	-11	20
04-E-0003	WALING CO	Y	\$1,637,000.00	\$1,818,860.00	\$2,037,000.00	-22	0
04-E-0003	E & M CON	Y	\$334,000.00	\$567,000.00		53	ERROR
04-E-0003	DANLAD CO	N	\$1,743,000.00	\$5,000,000.00	\$4,640,000.00	-5	0
04-E-0003	ELLIOTT LE	N	\$4,273,000.00	\$5,000,000.00	\$4,540,000.00	-7	0
04-E-0003	G & C ENTER	Y	\$5,273,000.00	\$5,000,000.00	\$4,640,000.00	5	14
04-E-0003	GIBSON HAR	N	\$4,541,000.00	\$5,000,000.00	\$4,640,000.00	-7	0
04-E-0003	REITER CON	Y	\$4,771,000.00	\$5,000,000.00	\$4,640,000.00	-5	0
04-E-0003	ARNOLD R	N	\$3,456,000.00	\$3,143,000.00		10	ERROR
04-E-0003	MORI EPOCH	Y	\$1,310,000.00	\$3,143,000.00		5	ERROR
04-E-0003	REITER CON	Y	\$3,572,000.00	\$3,143,000.00		7	ERROR
04-E-0003	SWEDES CO	Y	\$3,333,000.00	\$3,143,000.00		6	ERROR
04-E-0003	FOCUS INC		\$1,171,561.00	\$3,143,000.00		-63	ERROR
04-E-0041	A F ELEC	Y	\$155,555.00	\$172,000.00	\$164,000.00	16	3
04-E-0041	ANGELIS CO	Y	\$265,000.00	\$172,000.00	\$164,000.00	63	52
04-E-0041	BLAIRCON	Y	\$246,000.00	\$172,000.00	\$164,000.00	43	34
04-E-0041	FOXTAB CON	Y	\$213,000.00	\$172,000.00	\$164,000.00	22	14
04-E-0041	GUACELLI E	Y	\$221,000.00	\$172,000.00	\$164,000.00	28	26
04-E-0041	SAVIE CON	Y	\$244,000.00	\$172,000.00	\$164,000.00	42	33
04-E-0041	UNITED CON	Y	\$164,000.00	\$172,000.00	\$164,000.00	7	0
04-E-0041	DANLAD CO	Y	\$276,000.00	\$172,000.00	\$164,000.00	60	50
04-E-0041	BEN HADJEE	Y	\$76,661.00	\$166,000.00	\$153,810.00	-23	42
04-E-0043	BILL STON	Y	\$103,502.00	\$100,000.00	\$153,810.00	20	123
04-E-0043	DEL-VAL ME	N	\$105,610.00	\$100,000.00	\$153,810.00	6	57
04-E-0043	DELAN MECH	Y	\$100,000.00	\$100,000.00	\$153,810.00	0	55
04-E-0041	FUTURA CO	Y	\$64,400.00	\$100,000.00	\$153,810.00	-36	20
04-E-0043	GRADY ME	N	\$55,000.00	\$100,000.00	\$153,810.00	-15	53
04-E-0043	HEV AND EC	Y	\$55,547.00	\$100,000.00	\$153,810.00	-47	3
04-E-0043	HONER AND	N	\$53,610.00	\$100,000.00	\$153,810.00	-46	0
04-E-0043	J & L FLOW	Y	\$54,325.00	\$100,000.00	\$153,810.00	-12	57
04-E-0043	JOHN E ME	N	\$51,156.00	\$100,000.00	\$153,810.00	-10	52
04-E-0043	MELVILLE E	Y	\$76,128.00	\$100,000.00	\$153,810.00	-24	47
04-E-0043	MODERN ME	Y	\$57,840.00	\$100,000.00	\$153,810.00	-12	53
04-E-0043	F & B CO	N	\$57,200.00	\$100,000.00	\$153,810.00	-3	57
04-E-0043	SCHAEFER E	Y	\$57,369.00	\$100,000.00	\$153,810.00	-23	43
04-E-0043	STAFFORD	Y	\$53,500.00	\$100,000.00	\$153,810.00	-10	55

CONTRACT#	OFFEROR	BE	S O B BID	SOVIT EST	AWARD PRICE	PDF SOV	1 OF AWA
84-B-0040	UNION SOIL	Y	\$57,017.00	\$100,000.00	\$59,810.00	-12	63
84-B-0040	WM. F. GAVIN	Y	\$55,293.00	\$100,000.00	\$59,810.00	-45	2
84-B-0040	DEL VAL ME	Y	\$1,198,500.00	\$2,781,000.00		55	ERROR
84-B-0040	HEARTH HTS	Y	\$2,781,000.00	\$2,781,000.00		96	ERROR
84-B-0040	KOE VAN IN	Y	\$1,190,810.00	\$2,781,000.00		47	ERROR
84-B-0047	ADVANCE ME	Y	\$173,000.00	\$503,000.00	\$129,924.00	-65	27
84-B-0047	CAPITAL ME	Y	\$505,000.00	\$503,000.00	\$129,924.00	0	299
84-B-0047	DOLAN MECH	Y	\$184,800.00	\$503,000.00	\$129,924.00	-60	42
84-B-0047	HUTCHINSON	Y	\$212,589.00	\$503,000.00	\$129,924.00	-58	64
84-B-0047	J J EEE ME	Y	\$543,882.00	\$503,000.00	\$129,924.00	-32	155
84-B-0047	SCHAEFFER	Y	\$129,924.00	\$503,000.00	\$129,924.00	-74	0
84-B-0047	WILLIAM F	Y	\$399,171.00	\$503,000.00	\$129,924.00	-23	139
84-B-0048	ADVANCED M	Y	\$572,000.00	\$1,122,000.00	\$548,100.00	-22	59
84-B-0048	ADVANCED M	Y	\$572,000.00	\$1,122,000.00	\$548,100.00	-22	58
84-B-0048	COTTMAN ME	?	\$554,100.00	\$1,122,000.00	\$548,100.00	-48	7
84-B-0048	COTTMAN ME	N	\$548,100.00	\$1,122,000.00	\$548,100.00	-51	0
84-B-0048	JAMES F CA	Y	\$753,000.00	\$1,122,000.00	\$548,100.00	-34	35
84-B-0048	JAMES F G	Y	\$753,000.00	\$1,122,000.00	\$548,100.00	-34	35
84-B-0048	MICHAEL C.	Y	\$597,400.00	\$1,122,000.00	\$548,100.00	-38	27
84-B-0048	PAUL J BRO	?	\$0.00	\$1,122,000.00	\$548,100.00	-100	-100
84-B-0048	REITER CON	Y	\$547,000.00	\$1,122,000.00	\$548,100.00	-42	15
84-B-0048	REITER CON	Y	\$547,000.00	\$1,122,000.00	\$548,100.00	-42	13
84-B-0048	W F GAVIN	Y	\$547,004.00	\$1,122,000.00	\$548,100.00	-15	73
84-B-0048	MICHAEL C	Y	\$597,400.00	\$1,122,000.00	\$548,100.00	-38	27
84-B-0048	W F. GAVIN	Y	\$547,004.00	\$1,122,000.00	\$548,100.00	-15	73
84-B-0055	DEL-VAL ME	?	\$1,748,105.00	\$1,259,000.00		39	ERROR
84-B-0059	DANLADI CO	Y	\$1,473,000.00	\$1,259,000.00		96	ERROR
84-B-0059	ESSE-ARAO	Y	\$1,775,000.00	\$1,259,000.00		41	ERROR
84-B-0102	REITER CON	Y	\$598,000.00	\$598,000.00	\$597,000.00	-16	6
84-B-0102	SCHAEFFER E	Y	\$598,392.00	\$598,000.00	\$597,000.00	-9	22
84-B-0102	WILLIAM F	Y	\$598,497.00	\$598,000.00	\$597,000.00	-5	20
84-B-0102	FRAUENT CO	Y	\$598,800.00	\$598,000.00	\$597,000.00	36	71
84-B-0108	ADVANCED M	Y	\$564,000.00	\$595,000.00		49	ERROR
84-B-0108	COTTMAN ME	N	\$774,100.00	\$595,000.00		32	ERROR
84-B-0108	DOLAN MECH	Y	\$597,000.00	\$595,000.00		1	ERROR
84-B-0108	HUTCHINSON	N	\$544,909.00	\$595,000.00		44	ERROR
84-B-0108	SHANER & I	Y	\$595,000.00	\$595,000.00		40	ERROR
84-B-0122	ARNOLD M.	Y	\$2,247,500.00	\$1,259,000.00	\$1,484,400.00	73	51
84-B-0122	DEL-VAL ME	Y	\$1,555,660.00	\$1,259,000.00	\$1,484,400.00	51	28
84-B-0122	ELLIOTT-LE	Y	\$2,253,000.00	\$1,259,000.00	\$1,484,400.00	73	52
84-B-0122	MORRIS IRE	Y	\$1,569,055.00	\$1,259,000.00	\$1,484,400.00	33	12
84-B-0122	REITER CON	Y	\$1,707,000.00	\$1,259,000.00	\$1,484,400.00	37	16
84-B-0122	SWEFCO COP	Y	\$1,595,000.00	\$1,259,000.00	\$1,484,400.00	27	7
84-B-0122	UNITED ERE	Y	\$1,484,400.00	\$1,259,000.00	\$1,484,400.00	19	0
84-B-0123	DEL VAL ME	Y	\$599,589.00	\$544,600.00	\$589,884.00	27	39
84-B-0123	DOLAN MECH	Y	\$524,000.00	\$544,600.00	\$589,884.00	-9	6
84-B-0123	G & O ENTE	Y	\$555,000.00	\$544,600.00	\$589,884.00	2	11
84-B-0123	HUTCHINSON	Y	\$584,515.00	\$544,600.00	\$589,884.00	6	15
84-B-0123	MIRY BROTH	Y	\$597,700.00	\$544,600.00	\$589,884.00	6	16
84-B-0123	NORTH AHER	Y	\$559,200.00	\$544,600.00	\$589,884.00	33	46
84-B-0123	SCHAEFFER E	Y	\$599,584.00	\$544,600.00	\$589,884.00	-5	1
84-B-0134	CONATO EPA	?	\$373,560.00	\$138,549.00		100	ERROR

COUNTDOWN	REFERENCE	FE	E D E BID	BIDDER BID	AWARD PRICE	WOF BDN	% OF AIA	
84-B-0184	SADELLI E	N		\$178,847.00	\$188,848.00		48	ERROR
84-B-0184	WILSON L	N		\$147,781.00	\$155,848.00		64	ERROR
84-B-0184	MARTELL CO	N		\$178,811.00	\$188,848.00		67	ERROR
84-B-0184	PAN S CO	N		\$188,100.00	\$188,848.00		98	ERROR
84-B-0184	PAN S CO	N		\$184,100.00	\$188,848.00		67	ERROR
84-B-0184	SCHEFFER	N		\$147,884.00	\$188,848.00		64	ERROR
84-B-0184	UNITED CO	N		\$178,100.00	\$188,848.00		58	ERROR
84-B-0184	WILSON E	N		\$177,878.00	\$188,848.00		61	ERROR
84-B-0148	WASH. S. CO	N		\$411,181.00	\$418,000.00	\$488,872.00	11	0
84-B-0148	MARTELL CO	N		\$787,800.00	\$418,100.00	\$488,872.00	61	68
84-B-0148	COASTAL LA	N		\$318,184.00	\$318,888.00	\$388,000.00	28	10
84-B-0148	DOLAN TECH	N		\$178,888.00	\$318,888.00	\$388,000.00	28	7
84-B-0148	SAVITT CO	N		\$188,000.00	\$318,888.00	\$388,000.00	12	0
84-B-0148	WASH. CO	N		\$388,188.00	\$318,888.00	\$388,000.00	28	18
84-B-0148	RICHIE CO	N		\$318,111.00	\$318,888.00	\$388,000.00	6	-8
84-B-0148	SAVITT CO	N		\$178,878.00	\$318,888.00	\$388,000.00	51	38
84-B-0181	BORG DEVEL	N		\$1,148,100.00	\$1,800,100.00	\$1,188,000.00	-8	2
84-B-0181	WILSON	N		\$1,488,100.00	\$1,800,100.00	\$1,188,000.00	-1	8
84-B-0181	E. F. S. CO	N		\$1,818,100.00	\$1,800,100.00	\$1,188,100.00	-0	11
84-B-0181	S. & S. CO	N		\$1,188,000.00	\$1,800,100.00	\$1,188,000.00	-10	0
84-B-0181	SAVITT CO	N		\$1,188,800.00	\$1,800,100.00	\$1,188,000.00	-5	0
84-B-0181	J. ROSS CO	N		\$1,488,100.00	\$1,800,100.00	\$1,188,000.00	-1	8
84-B-0181	MARTELL CO	N		\$1,882,100.00	\$1,800,100.00	\$1,188,000.00	10	21
84-B-0181	ROBERT S. F.	N		\$1,188,128.00	\$1,800,100.00		-8	ERROR
84-B-0181	BRISTOL E	N		\$1,881,100.00	\$1,878,100.00	\$1,042,000.00	28	10
84-B-0181	ROEIDER C	N		\$1,141,400.00	\$1,878,100.00	\$1,042,100.00	17	8
84-B-0181	WILSON SEN	N		\$1,042,100.00	\$1,878,100.00	\$1,042,000.00	14	0
84-B-0188	SAVITT CO	N		\$1,488,840.00	\$1,800,100.00	\$1,488,840.00	28	0
84-B-0188	S. B. CO	N		\$1,447,800.00	\$1,800,100.00	\$1,488,840.00	14	0
84-B-0188	LT. DAWSON	N		\$1,177,488.00	\$1,800,100.00	\$1,488,840.00	47	18
84-B-0188	CLARK CO	N		\$41,488,878.00	\$1,800,100.00		41	ERROR
84-B-0188	WILSON	N		\$41,488,888.00	\$1,800,100.00		40	ERROR
84-B-0188	PERIN CO	N		\$87,841,188.00	\$1,800,100.00		80	ERROR
84-B-0188	WILSON CO	N		\$48,188,100.00	\$1,800,100.00		48	ERROR
84-B-0181	REED & REE	N		\$1,888,100.00	\$1,871,181.00		11	ERROR
84-B-0181	SHASTA CO	N		\$1,440,100.00	\$1,871,188.00		-8	ERROR
84-B-0181	M. B. ALLEN	N		\$1,840,000.00	\$1,894,000.00		41	ERROR
84-B-0181	HOLLY S. F.	N		\$1,884,000.00	\$1,894,000.00		51	ERROR
84-B-0181	PAGE CO	N		\$1,887,000.00	\$1,894,000.00		54	ERROR
84-B-0181	KID MAINE	N		\$188,000.00	\$484,888.00		-8	ERROR
84-B-0181	STROM CRAP	N	-	\$478,847.00	\$484,888.00		17	ERROR
84-B-0188		N		\$1,188,188.00	\$1,188,000.00	\$2,188,281.00	-1	0
84-B-0188	COLLELL CO	N		\$188,188.00	\$1,188,000.00	\$2,188,281.00	-18	-88
84-B-0188	CONSOLIDAT	N		\$1,188,881.00	\$1,188,100.00	\$2,188,281.00	8	8
84-B-0188	A. E. HALL	N		\$1,188,100.00	\$1,188,100.00	\$2,188,281.00	18	18
84-B-0188	H. J. S. CO	N		\$1,808,878.00	\$1,188,100.00	\$2,188,281.00	17	18
84-B-0181	NATION CO	N		\$888,821.00	\$788,000.00	\$888,821.00	27	0
84-B-0181	ATLANTIC E	N		\$181,040.00	\$188,000.00		64	ERROR
84-B-0188	E. L. SHOR	N		\$178,782.00	\$188,000.00		48	ERROR
84-B-0184	C. F. HARRIS	N		\$1,488,088.00	\$888,177.00		58	ERROR
84-B-0184	MARTELL CO	N		\$1,818,100.00	\$888,177.00		48	ERROR
84-B-0184	DANLAW CO	N		\$1,488,100.00	\$888,177.00		58	ERROR

CONTRACT#	OFFEROR	SB	S D E	BID	GOV'T EST	AWARD PRICE	% OF GOV'T	% OF AUA
84-B-0355	D.L. FOULI	Y		\$1,351,344.00	\$807,000.00	\$1,167,000.00	65	14
84-B-0357	HARRY G. C	Y		\$3,553,532.00	\$3,549,000.00		12	ERROR
84-B-0355	REIELE CON	Y		\$1,557,300.00	\$825,700.00	\$767,000.00	62	82
84-B-0355	CHAFFY COR	Y		\$952,688.00	\$825,700.00	\$767,000.00	20	25
84-B-0355	COHEN COMF	Y		\$862,547.00	\$825,700.00	\$767,000.00	5	13
84-B-0355	E W AUDET	Y		\$777,729.00	\$825,700.00	\$767,000.00	-6	1
84-B-0355	JAMES J O'	Y		\$1,604,800.00	\$825,700.00	\$767,000.00	22	31
84-B-0355	FOTHAN ELE	Y		\$862,000.00	\$825,700.00	\$767,000.00	4	12
84-B-0355	THE RYAN C	Y		\$767,000.00	\$825,700.00	\$767,000.00	-7	0
84-B-0355	WILLIAMS E	Y		\$861,817.00	\$825,700.00	\$767,000.00	4	12
84-B-0350	MAGNUM INC	Y		\$425,508.00	\$227,000.00		89	ERROR
84-B-0432	DEPANTO CO	?		\$143,000.00	\$99,330.00	\$145,000.00	49	0
84-B-0432	KEM CONSTR	Y		\$167,320.00	\$99,330.00	\$145,000.00	66	13
84-B-0432	TEXAS ELEV	Y		\$148,000.00	\$99,330.00	\$148,000.00	150	65
84-B-0432	UNIFORM DE	?		\$169,530.00	\$99,330.00	\$148,000.00	70	14
84-B-0432	VALCO INC	Y		\$148,500.00	\$99,330.00	\$148,000.00	50	0
84-B-0432	NO BIDS RE	-	-	ERROR	ERROR	\$148,000.00	ERROR	ERROR
84-B-0476	DAVIEVILLE	Y		\$704,550.00	\$682,000.00		?	ERROR
84-B-0502	SUPERIOR COR	Y		\$2,741,774.00	\$2,505,000.00	\$2,741,744.00	-2	0
84-B-0502	W. LALER C	Y		\$3,550,100.00	\$2,813,000.00	\$2,741,744.00	29	31
84-B-0503	A F O'HARE	Y		\$3,465,000.00	\$3,035,000.00	\$3,465,000.00	14	?
84-B-0503	JACK STEED	Y		\$3,547,000.00	\$3,035,000.00	\$3,465,000.00	30	14
84-B-0503	HAVERHOLM C	Y		\$4,017,555.00	\$3,035,000.00	\$3,465,000.00	29	22
84-B-0503	KIWE COATE	Y		\$3,555,667.00	\$3,035,000.00	\$3,465,000.00	30	14
84-B-0503	THE CONTI	Y		\$3,000,000.00	\$3,035,000.00	\$3,465,000.00	65	44
84-B-0514	GAFFNEY CO	Y		\$1,076,000.00	\$800,000.00		60	ERROR
84-B-0514	H W ALLEN	Y		\$999,000.00	\$800,000.00		24	ERROR
84-B-0514	MIDDLESEX	Y		\$101,481.00	\$800,000.00		-87	ERROR
84-B-0514	FRAUGHT CO	Y		\$990,000.00	\$800,000.00		23	ERROR
84-B-0514	TLT CONSET	Y		\$1,690,000.00	\$800,000.00		112	ERROR
84-B-0516	E STEFOMBER	Y		\$3,110,917.00	\$2,911,000.00	\$3,110,917.00	7	?
84-B-0516	CERTIFIED	Y		\$2,825,000.00	\$2,911,000.00	\$3,110,917.00	-3	-3
84-B-0516	G BLINDIN	?		\$3,331,900.00	\$2,911,000.00	\$3,110,917.00	17	5
84-B-0516	L E DANNIN	?		\$3,769,795.00	\$2,911,000.00	\$3,110,917.00	30	21
84-B-0516	W A RABDEL	?		\$3,358,014.00	\$2,911,000.00	\$3,110,917.00	15	8
84-B-0533	BORD DEVEL	N		\$7,190,000.00	\$7,200,000.00	\$7,190,000.00	-0	0
84-B-0533	G & C ENTE	Y		\$7,557,000.00	\$7,200,000.00	\$7,190,000.00	5	5
84-B-0533	J J WHITE	N		\$8,830,000.00	\$7,200,000.00	\$7,190,000.00	23	23
84-B-0533	THE CARLES	N		\$8,478,780.00	\$7,200,000.00	\$7,190,000.00	18	18
84-B-0533	DANLADI CO	Y	Y	\$9,343,000.00	\$7,200,000.00	\$7,190,000.00	30	30
84-B-0601	ENGEL CONG	?		\$820,000.00	\$531,000.00		54	ERROR
84-B-0601	GIFCO INC	Y		\$751,481.00	\$531,000.00		42	ERROR
84-B-0601	FRAUGHT CO	Y		\$1,145,000.00	\$531,000.00		116	ERROR
84-B-0601	WHITE MOOR	Y		\$975,000.00	\$531,000.00		84	ERROR
84-B-0604	ATLANTIC D	Y		\$197,300.00	\$0.00	\$197,300.00	ERROR	0
84-B-0604	CROSS EAV	?		\$495,000.00	\$0.00	\$197,300.00	ERROR	157
84-B-0604	GATEWAY DE	Y		\$274,469.00	\$0.00	\$197,300.00	ERROR	39
84-B-0604	GEO W ROSE	Y		\$226,760.00	\$0.00	\$197,300.00	ERROR	15
84-B-0604	JULI-TRAN	N		\$477,000.00	\$0.00	\$197,300.00	ERROR	142
84-B-0604	OPEN CONTE	N		\$260,000.00	\$0.00	\$197,300.00	ERROR	32
84-B-0604	WATERFRONT	?		\$255,324.00	\$0.00	\$197,300.00	ERROR	35
84-B-0606	B S. McCAR	Y		\$425,000.00	\$395,000.00	\$409,206.00	6	4

CONTRACT#	CARRIER	SE	EST	EST	EST	AWARD PRICE	% OF GOV	% OF GOV
84-B-0608	CALAFED CO	Y		\$409,808.00	\$385,000.00	\$409,808.00	4	0
84-B-0608	FONTANA CON	Y		\$409,808.00	\$385,000.00	\$409,808.00	18	14
84-B-0608	GEORGE NOL	Y		\$477,700.00	\$385,000.00	\$409,808.00	21	17
84-B-0608	RICHARD M	Y		\$828,600.00	\$385,000.00	\$409,808.00	34	29
84-B-0608	TIGER CONS	Y		\$519,500.00	\$385,000.00	\$409,808.00	31	26
84-B-0610	F J BELMON	Y		\$2,178,415.00	\$1,899,000.00	\$2,178,415.00	15	0
84-B-0610	REYNOLD SF	Y		\$1,865,374.00	\$1,899,000.00	\$2,178,415.00	52	32
84-B-0610	BILT-RITE	Y		\$1,837,802.00	\$1,899,000.00	\$1,299,750.00	75	45
84-B-0610	EDCO CONEL	Y		\$1,299,750.00	\$1,899,000.00	\$1,299,750.00	20	0
84-B-0620	D KEMENASH	Y		\$1,899,000.00	\$1,899,000.00	\$1,299,750.00	56	30
84-B-0620	GAFFNEY CO	Y		\$1,485,000.00	\$1,899,000.00	\$1,299,750.00	36	13
84-B-0610	MAGNUM INC	Y		\$1,413,835.00	\$1,899,000.00	\$1,299,750.00	31	3
84-B-0610	MARTELL CO	Y		\$1,617,100.00	\$1,899,000.00	\$1,299,750.00	40	17
84-B-0620	STD BLDG	Y		\$1.00	\$1,899,000.00	\$1,299,750.00	-100	-100
84-B-0610	CALAFED CO	Y		\$1,899,700.00	\$1,899,000.00	\$1,299,750.00	51	26
84-B-0610	BAKSTATE C	Y		\$858,000.00	\$870,244.00	\$758,900.00	57	18
84-B-0610	GAFFNEY CO	Y		\$858,000.00	\$870,244.00	\$758,900.00	63	17
84-B-0610	THOMPSON	Y		\$857,800.00	\$870,244.00	\$7,788,900.00	50	-35
84-B-0610	M T FISH C	Y		\$735,900.00	\$870,244.00	\$758,900.00	38	4
84-B-0614	FOUR D ELE	Y		ERROR	\$181,000.00	\$286,231.00	ERROR	ERROR
84-B-0614	F L B, INC	Y		\$116,211.00	\$181,000.00	\$116,231.00	30	0
84-B-0659	JAMES H MA	Y		\$188,500.00	\$111,000.00		69	ERROR
84-B-0675	HAMMITT CO	Y		\$167,000.00	\$148,100.00	\$167,000.00	49	0
84-B-0675	INTERIOR S	Y		\$788,770.00	\$148,100.00	\$167,000.00	220	115
84-B-0684	JOHN M BUI	Y		\$46,300.00	\$14,000.00	\$46,300.00	33	0
84-B-0684	THOMPSON	Y		\$68,200.00	\$14,000.00	\$46,300.00	176	40
84-B-0684	THE CONTRA	Y		\$51,650.00	\$14,000.00	\$46,300.00	119	14
84-B-0717	HUFF ENTER	Y		\$455,000.00	\$405,600.00	\$340,750.00	-23	34
84-B-0717	J KENCLAW	Y		\$1,161,112.00	\$405,600.00	\$340,750.00	75	202
84-B-0717	JENKINS CO	Y		\$780,000.00	\$405,600.00	\$340,750.00	19	129
84-B-0717	MARANOSS T	Y		\$538,000.00	\$405,600.00	\$340,750.00	-1	75
84-B-0717	MARANOSS	Y		\$440,000.00	\$405,600.00	\$340,750.00	-17	29
84-B-0717	NATIONAL F	Y		\$412,769.00	\$405,600.00	\$340,750.00	-19	17
84-B-0717	QUALITY CO	Y		\$695,711.00	\$405,600.00	\$340,750.00	15	104
84-B-0717	TRID CONET	Y		\$830,000.00	\$405,600.00	\$340,750.00	-4	70
84-B-0717	VIENNA CO	Y		\$840,750.00	\$405,600.00	\$340,750.00	-44	0
84-B-0731	B S McCARE	Y		\$551,750.00	\$385,000.00	\$567,000.00	54	5
84-B-0731	NEWFID CO	Y		\$620,500.00	\$385,000.00	\$567,000.00	61	5
84-B-0731	RICHARD M	Y		\$567,000.00	\$385,000.00	\$567,000.00	47	0
84-B-0731	LINCOLN CO	Y		\$336,465.00	\$342,056.00	\$336,465.00	-2	0
84-B-0731	MAGNUM INC	Y		\$432,365.00	\$375,218.34		30	ERROR
84-B-0731	PITTER INC	Y		\$479,721.00	\$375,218.34		27	ERROR
84-B-0731	SALVATORE	Y		\$628,943.00	\$375,218.34		66	ERROR
84-B-8887	ATHAN CONT	Y		\$417,000.00	\$437,242.00		-8	ERROR
84-B-8887	BRUNE CO I	Y		\$558,374.00	\$437,242.00		23	ERROR
84-B-8887	HAMPTON EE	Y		\$466,700.00	\$437,242.00		7	ERROR
84-B-8887	JOHN C BDN	Y		\$348,574.00	\$437,242.00		-30	ERROR
84-B-8887	PIONEER CO	Y		\$384,000.00	\$437,242.00		-12	ERROR
84-B-8887	PEE CONET	Y		\$338,326.00	\$437,242.00		-12	ERROR
84-B-8887	THE WILSON	Y		\$336,000.00	\$437,242.00		-30	ERROR
84-B-8887	L S W-132	Y		\$575,757.00	\$437,242.00		32	ERROR
84-B-8887	DANLADI CO	Y		\$409,000.00	\$437,242.00		-1	ERROR

CONTRACT#	OFFEROR	EE	S D B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF ALL
84-B-6658	AUTOMATED	N		\$89,591.00	\$44,000.00		104	ERROR
84-B-6658	AUTOMATED	N		\$89,591.00	\$44,000.00		104	ERROR
84-B-6658	CENTURY RV	Y		\$87,500.00	\$44,000.00		99	ERROR
84-B-6658	GLOBAL FIR	N		\$76,426.00	\$44,000.00		74	ERROR
84-B-6658	H.V. ALLEN	Y		\$54,400.00	\$44,000.00		115	ERROR
84-R-0517	ALEX NUNDE	?	Y	\$2,365,000.00	\$1,720,000.00	\$1,888,600.00	37	25
84-R-0517	C F MOORE	?	Y	\$2,214,423.00	\$1,720,000.00	\$1,888,600.00	29	17
84-R-0517	CONTECH	?	Y	\$2,820,112.00	\$1,710,000.00	\$1,888,600.00	64	49
84-R-0517	FINFANID	?	Y	\$1,888,600.00	\$1,710,000.00	\$1,888,600.00	10	0
84-R-0517	VEN INC	?	Y	\$2,075,304.00	\$1,720,000.00	\$1,888,600.00	21	10
85-B-0003	A.P. ELECT	Y		\$266,510.00	\$269,753.00	\$266,800.00	-5	-4
85-B-0003	BOL CONST	Y		\$266,800.00	\$269,753.00	\$266,800.00	-1	0
85-B-0003	H T M ALL	Y		\$333,790.00	\$269,753.00	\$266,800.00	42	44
85-B-0003	RIVERFAR CO	Y		\$266,714.00	\$269,753.00	\$266,800.00	6	7
85-B-0003	SECSFEET C	Y		\$325,188.00	\$269,753.00	\$266,800.00	22	25
85-B-0003	STARN CRAF	Y		\$236,285.00	\$269,753.00	\$266,800.00	6	7
85-B-0003	THERMO CON	Y		\$304,111.00	\$269,753.00	\$266,800.00	13	14
85-B-0007	GARFNEY CO	Y		\$119,034.00	\$90,000.00	\$115,000.00	32	0
85-B-0007	J M LISTER	Y		\$128,740.00	\$90,000.00	\$115,000.00	41	8
85-B-0012	SARLIN CON	?		\$130,400.00	\$1,115,400.00		-96	ERROR
85-B-0012	J B NASIN	Y		\$121,000.00	\$1,115,400.00		-96	ERROR
85-B-0013	BILL STRON	Y		\$2,948,415.00	\$1,400,000.00		103	ERROR
85-B-0013	J C N CONE	Y		\$2,241,000.00	\$1,400,000.00		60	ERROR
85-B-0014	C R KLEWIN	?		\$5,694,985.00	\$5,116,320.00	\$4,924,000.00	11	15
85-B-0014	CALADONT	?		\$6,670,000.00	\$5,116,320.00	\$4,924,000.00	30	55
85-B-0014	CARLIN CON	?		\$4,924,000.00	\$5,116,320.00	\$4,924,000.00	-4	0
85-B-0014	J L KAREHA	?		\$6,388,000.00	\$5,116,320.00	\$4,924,000.00	19	24
85-B-0014	J B NASIN	Y		\$5,333,000.00	\$5,116,320.00	\$4,924,000.00	5	9
85-B-0014	PEARBODY CO	?		\$6,432,000.00	\$5,116,320.00	\$4,924,000.00	26	31
85-B-0015	GARFNEY CO	Y		\$2,135,392.00	\$885,360.00	\$1,088,000.00	147	101
85-B-0015	J C N CONE	Y		\$1,466,000.00	\$885,360.00	\$1,088,000.00	65	33
85-B-0015	MARTIN J	Y		\$1,440,000.00	\$889,350.00	\$1,088,000.00	62	32
85-B-0025	BILL STRON	Y		\$6,485,000.00	\$6,704,275.00		-3	ERROR
85-B-0025	SWEPCO COR	Y		\$7,600,756.00	\$6,704,275.00		13	ERROR
85-B-0029	TRATARTOS	Y		\$7,675,000.00	\$6,704,275.00		14	ERROR
85-B-0029	TEXAS CAPI	Y		\$6,755,000.00	\$6,704,275.00		1	ERROR
85-B-0032	CONTR GRDU	Y		\$3,540,315.00	\$3,645,800.00		-3	ERROR
85-B-0036	D L FOWLIN	Y		\$3,332,345.00	\$3,645,800.00		-6	ERROR
85-B-0036	DAVIS & HA	Y		\$3,119,491.00	\$3,645,800.00		-14	ERROR
85-B-0036	H E CALLAH	Y		\$3,066,914.00	\$3,645,800.00		-16	ERROR
85-B-0036	JCK CONST	Y		\$5,211,000.00	\$3,645,800.00		43	ERROR
85-B-0036	JCK CONSTR	Y		\$4,470,000.00	\$3,645,800.00		23	ERROR
85-B-0036	PLADEWAY C	Y		\$3,034,000.00	\$3,645,800.00		-17	ERROR
85-B-0036	SPDETAL	Y		\$3,459,444.00	\$3,645,800.00		-5	ERROR
85-B-0036	TRATARTOS	Y		\$4,190,000.00	\$3,645,800.00		17	ERROR
85-B-0045	CAPALDI BR	Y		\$2,552,756.00	\$1,641,518.00	\$2,460,000.00	56	4
85-B-0045	CONST ENG	Y		\$3,521,341.00	\$1,641,518.00	\$2,460,000.00	115	43
85-B-0045	G BRILLO C	Y		\$2,460,000.00	\$1,641,518.00	\$2,460,000.00	50	0
85-B-0045	HUGO REY &	Y		\$1,755,247.00	\$1,641,518.00	\$2,460,000.00	7	-15
85-B-0045	SWEPCO COR	Y		\$2,554,000.00	\$1,641,518.00	\$2,460,000.00	56	4
85-B-0059	ANGELO'S C	Y		\$264,000.00	\$245,225.00	\$264,000.00	8	0
85-B-0059	BOND ELEC	?		\$113,106.00	\$245,225.00	\$264,000.00	-54	-57

CONTRACT#	OFFEROR	SE	S.D.B	EID	GOV'T EST	AWARD PRICE	COF GOV'T	% OF AIA
85-B-0059	KEM CONSTR	Y		\$457,630.00	\$445,225.00	\$254,000.00	27	75
85-B-0059	FERGIE BRD	Y		\$344,775.00	\$445,225.00	\$254,000.00	41	31
85-B-0062	AMERICAN C	Y		\$473,267.00	\$420,233.00	\$373,743.00	14	33
85-B-0062	BELL STRON	Y		\$355,399.00	\$420,233.00	\$373,743.00	-6	6
85-B-0062	DANLADI CD	Y		\$594,000.00	\$420,233.00	\$373,743.00	53	32
85-B-0062	HUTCHINSON	Y		\$384,853.00	\$420,233.00	\$373,743.00	-8	3
85-B-0062	M & M SERV	Y		\$628,952.00	\$420,233.00	\$373,743.00	49	67
85-B-0062	RANCO CONE	Y		\$472,000.00	\$420,233.00	\$373,743.00	12	26
85-B-0062	RAY ANGELI	Y		\$444,000.00	\$420,233.00	\$373,743.00	6	19
85-B-0062	SAN LUCAS	Y		\$373,743.00	\$420,233.00	\$373,743.00	-11	0
85-B-0062	TAYLOR MOD	Y		\$489,000.00	\$420,233.00	\$373,743.00	15	29
85-B-0062	TITAN CONS	Y		\$532,000.00	\$420,233.00	\$373,743.00	55	85
85-B-0070	ADVANCED M	Y		\$1,454,597.00	\$757,000.00	\$145,597.00	90	899
85-B-0070	MAGNUM INC	Y		\$1,437,000.00	\$757,000.00	\$145,597.00	95	928
85-B-0070	STRUCTURAL	Y		\$1,914,850.00	\$757,000.00	\$145,597.00	130	1215
85-B-0075	ARNOLD M D	Y		\$1,710,427.00	\$1,316,730.00		20	ERROR
85-B-0075	CARLIN CON	Y		\$1,568,205.00	\$1,316,730.00	\$1,084,344.00	27	54
85-B-0075	JAMES J D'	Y		\$1,958,657.00	\$1,316,730.00	\$1,084,344.00	43	81
85-B-0075	PLACEWAY C	?		\$1,929,000.00	\$1,316,730.00	\$1,084,344.00	39	68
85-B-0075	SWEPCO COR	Y		\$1,939,000.00	\$1,316,730.00	\$1,084,344.00	40	70
85-B-0075	THAMROCK A	Y		\$1,930,600.00	\$1,316,730.00	\$1,084,344.00	38	69
85-B-0078	A.B. COCHR	Y		\$5,557,000.00	\$5,210,788.00	\$4,928,714.00	-11	13
85-B-0078	DAVID ENGI	Y		\$5,437,900.00	\$5,210,788.00	\$4,928,714.00	-11	12
85-B-0078	DUNLOP & C			\$4,925,714.00	\$5,210,788.00	\$4,928,714.00	-11	0
85-B-0078	FORCE CONS			\$5,538,800.00	\$5,210,788.00	\$4,928,714.00	-8	15
85-B-0078	GENDRY CON			\$5,297,000.00	\$5,210,788.00	\$4,928,714.00	-15	7
85-B-0078	GOHEEN G C	Y		\$5,320,000.00	\$5,210,788.00	\$4,928,714.00	-14	3
85-B-0078	HOWARD W.			\$6,260,750.00	\$5,210,788.00	\$4,928,714.00	1	27
85-B-0078	IND CONTRA	Y		\$6,345,000.00	\$5,210,788.00	\$4,928,714.00	2	13
85-B-0078	LICHTEFELD	Y		\$5,250,000.00	\$5,210,788.00	\$4,928,714.00	-15	7
85-B-0078	STRUCK G	Y		\$5,245,800.00	\$5,210,788.00	\$4,928,714.00	-16	6
85-B-0078	TRAYLER BR	Y		\$5,587,889.00	\$5,210,788.00	\$4,928,714.00	-10	13
85-B-0078	WEDDLE BRD	Y		\$5,365,000.00	\$5,210,788.00	\$4,928,714.00	-14	3
85-B-0078	BLINDERMAN	Y		\$5,709,054.00	\$5,260,750.00	\$4,928,714.00	-9	16
85-B-0081	ROBERT J S	Y		\$1,539,500.00	\$552,106.00		79	ERROR
85-B-0084	ALFRED J F	Y		\$81,750.00	\$57,700.00		42	ERROR
85-B-0084	CARR & DUF	Y		\$93,450.00	\$57,700.00		62	ERROR
85-B-0084	KIRK BRDS	Y		\$23,500.00	\$57,700.00		55	ERROR
85-B-0084	KUBIAK ELE	Y		\$58,974.00	\$57,700.00		20	ERROR
85-B-0084	NICERO ELE	Y		\$94,400.00	\$57,700.00		64	ERROR
85-B-0084	PHILLIPS B	Y		\$71,710.00	\$57,700.00		24	ERROR
85-B-0084	RAY ANGELI	Y		\$93,000.00	\$57,700.00		61	ERROR
85-B-0090	A.F. LUSI	N		\$5,947,000.00	\$7,000,000.00	\$6,847,000.00	-2	0
85-B-0090	JLT CONST	N		\$6,987,000.00	\$7,000,000.00	\$6,847,000.00	-0	2
85-B-0091	IRRIGATION	Y		\$111,997.00	\$178,800.00		-37	ERROR
85-B-0091	HALLORAN &	Y		\$114,800.00	\$178,800.00		-36	ERROR
85-B-0091	TERRY'S CD	Y		\$160,000.00	\$178,800.00		-11	ERROR
85-B-0093	CHARLES CD	Y		\$4,809,000.00	\$4,575,659.00	\$4,909,000.00	5	0
85-B-0093	J.C.N CONS	Y		\$6,344,000.00	\$4,575,659.00	\$4,809,000.00	39	31
85-B-0101	HALDIN	Y		\$289,455.00	\$282,952.00	\$289,455.00	2	0
85-B-0101	HAMYTT CD	Y		\$425,000.00	\$282,952.00	\$289,455.00	50	47
85-B-0101	INDUSTRIAL	Y		\$347,200.00	\$282,952.00	\$289,455.00	13	20

CONTRACT#	OFFEROR	SS	S B S	EID	SOV'T EST	AWARD PRICE	% OF SOV'T	% OF A-A
85-B-0114	AMERICAN H	Y		\$387,800.00	\$454,000.00		-15	ERROR
85-B-0114	KIRK ERDE	Y		\$387,400.00	\$454,000.00		-15	ERROR
85-B-0114	REITER CON	Y		\$387,000.00	\$454,000.00		-13	ERROR
85-B-0114	UNITED ESE	Y		\$347,649.00	\$454,000.00		-23	ERROR
85-B-0114	CHARLES CO	N		\$9,899,000.00	\$8,543,300.00	\$9,180,000.00	16	0
85-B-0114	HARVEY CON	N		\$5,180,000.00	\$8,543,300.00	\$9,180,000.00	17	0
85-B-0114	JEFFERSON	N		\$9,191,000.00	\$8,543,300.00	\$9,180,000.00	8	0
85-B-0114	FEEDDY CO	N		\$5,814,000.00	\$8,543,300.00	\$9,180,000.00	15	7
85-B-0148	ARROW FENC	Y		\$882,277.00	\$1,055,045.00	\$468,972.00	-16	68
85-B-0148	B S McCAFE	Y		\$667,000.00	\$1,055,045.00	\$468,972.00	-37	42
85-B-0148	BUTLER FEN	Y		\$524,845.00	\$1,055,045.00	\$468,972.00	-50	12
85-B-0148	COLLINSO	Y		\$494,740.00	\$1,055,045.00	\$468,972.00	-53	5
85-B-0148	CROWLEY CO	Y		\$773,200.00	\$1,055,045.00	\$468,972.00	-27	65
85-B-0148	DEESE COVE	Y		\$657,000.00	\$1,055,045.00	\$468,972.00	-33	40
85-B-0148	RELIANCE F	Y		\$584,000.00	\$1,055,045.00	\$468,972.00	-45	25
85-B-0148	ROBERTS FEN	Y		\$468,972.00	\$1,055,045.00	\$468,972.00	-56	0
85-B-0148	THE RONE I	Y		\$494,000.00	\$1,055,045.00	\$468,972.00	-53	5
85-B-0148	ARROW FENC	Y	?	\$882,277.00	\$1,055,045.00	\$468,972.00	-16	68
85-B-0148	B S McCAFE	Y	?	\$667,000.00	\$1,055,045.00	\$468,972.00	-37	42
85-B-0148	BUTLER FEN	Y	?	\$524,845.00	\$1,055,045.00	\$468,972.00	-50	12
85-B-0148	COLLINSO	Y	?	\$494,740.00	\$1,055,045.00	\$468,972.00	-53	5
85-B-0148	CROWLEY CO	Y	?	\$773,200.00	\$1,055,045.00	\$468,972.00	-27	65
85-B-0148	DEESE COVE	Y	?	\$657,000.00	\$1,055,045.00	\$468,972.00	-33	40
85-B-0148	RELIANCE F	Y	?	\$584,000.00	\$1,055,045.00	\$468,972.00	-45	25
85-B-0148	THE RONE I	Y	?	\$494,000.00	\$1,055,045.00	\$468,972.00	-53	5
85-B-0148	ROBERTS FEN	Y	N	\$468,972.00	\$1,055,045.00	\$468,972.00	-56	0
85-B-0152	B S McCA	Y		\$979,000.00	\$900,000.00	\$979,000.00	9	0
85-B-0152	NATIONAL E	Y		\$1,490,000.00	\$500,000.00	\$979,000.00	66	52
85-B-0152	PENSHAM BA	Y		\$866,300.00	\$500,000.00	\$979,000.00	10	1
85-B-0152	RICHARD M	Y		\$361,000.00	\$500,000.00	\$979,000.00	11	2
85-B-0152	STRUCTURAL	Y		\$1,007,007.00	\$500,000.00	\$979,000.00	12	3
85-B-0155	HAND CONG	Y		\$102,000.00	\$73,000.00	\$87,800.00	40	16
85-B-0155	CEASAR CON	Y		\$95,000.00	\$73,000.00	\$87,800.00	30	8
85-B-0155	FARINELLI	Y		\$87,800.00	\$73,000.00	\$87,800.00	20	0
85-B-0155	MARTELL CO	Y		\$154,100.00	\$73,000.00	\$87,800.00	111	75
85-B-0160	PHA, INC.	Y		\$257,255.00	\$196,700.00	\$257,255.00	31	0
85-B-0160	ROLAFIS CO	Y		\$266,582.99	\$196,700.00	\$257,255.00	39	1
85-B-0167	GABEEN CON	Y		\$3,056,650.00	\$4,137,000.00		-26	ERROR
85-B-0167	LICHTEFELD	Y		\$3,143,250.00	\$4,137,000.00		-24	ERROR
85-B-0167	KREMPF LUX	Y		\$3,200,500.00	\$4,137,000.00		-23	ERROR
85-B-0167	DUNLAP & C	Y		\$3,364,750.00	\$4,137,000.00		-19	ERROR
85-B-0167	DAVID ENG	Y		\$3,356,525.00	\$4,137,000.00		-19	ERROR
85-B-0167	TRAFOR BR	Y		\$3,575,000.00	\$4,137,000.00		-18	ERROR
85-B-0167	GLEN ROY C	Y		\$3,442,400.00	\$4,137,000.00		-17	ERROR
85-B-0167	WEDDLE BRO	Y		\$3,444,500.00	\$4,137,000.00		-17	ERROR
85-B-0167	LENFY LUMB	Y		\$3,516,325.00	\$4,137,000.00		-15	ERROR
85-B-0167	RIVERA-COT	Y		\$3,553,500.00	\$4,137,000.00		-14	ERROR
85-B-0169	EAM OXLEY	Y		\$742,125.00	\$850,664.00		-13	ERROR
85-B-0169	BEATY CONG	Y		\$818,700.00	\$850,664.00		-4	ERROR
85-B-0169	MAC CONETS	Y		\$1,141,000.00	\$850,664.00		34	ERROR
85-B-0169	L D BARTL	Y		\$718,900.00	\$850,664.00		-15	ERROR
85-B-0169	WINELOW CO	Y		\$791,200.00	\$850,664.00		-7	ERROR

CONTRACT#	OFFEROR	SB	S D E	BID	COMMIT EST	AWARD PRICE	% OF gdw	% OF ALA
85-B-0180	AMERICAN C	Y		\$1,595,448.00	\$2,130,104.00	\$1,795,448.00	-20	-6
85-B-0180	J C N CONG	Y		\$3,094,000.00	\$2,130,104.00	\$1,795,448.00	45	72
85-B-0180	D L FOULIN	Y		\$9,000,000.00	\$2,130,104.00	\$1,795,448.00	303	401
85-B-0181	R.J. DELNO	Y		\$276,306.00	\$164,096.00	\$199,885.00	11	0
85-B-0185	A.P. WHITA	Y		\$274,000.00	\$164,096.00	\$199,885.00	67	37
85-B-0185	D.L. FOULI	Y		\$246,000.00	\$164,096.00	\$199,885.00	50	23
85-B-0185	HAMMITT CO	Y		\$214,000.00	\$164,096.00	\$199,885.00	30	7
85-B-0185	LYBURN	Y		\$322,100.00	\$164,096.00	\$199,885.00	36	61
85-B-0185	OLD TOWN A	Y		\$199,885.00	\$164,096.00	\$199,885.00	20	0
85-B-0185	FRAUGHT CO	Y		\$265,500.00	\$164,096.00	\$199,885.00	62	33
85-B-0189	TRI STATE	Y		\$2,352,000.00	\$1,619,408.00		45	ERROR
85-B-0189	ACME CONST	Y		\$2,538,500.00	\$1,619,408.00		57	ERROR
85-B-0189	FLETCHER-H	Y		\$2,683,598.00	\$1,619,408.00		66	ERROR
85-B-0189	DANLADI	Y		\$2,675,000.00	\$1,619,408.00		65	ERROR
85-B-0193	P.J. STELL	Y		\$5,401,200.00	\$5,600,000.00		27	ERROR
85-B-0193	EASTERN CO	Y		\$3,400,000.00	\$5,600,000.00		27	ERROR
85-B-0195	M.J. SIMMO	Y		\$1,020,000.00	\$852,478.00		21	ERROR
85-B-0195	MIDDLESEX	Y		\$978,000.00	\$852,478.00		19	ERROR
85-B-0195	MOORES & N	Y		\$1,024,999.00	\$852,478.00		20	ERROR
85-B-0195	FRAUGHT CO	Y		\$1,245,000.00	\$852,478.00		46	ERROR
85-B-0195	A.G.M. MAR	--		\$36,000.00	\$41,000.00	\$67,654.00	124	42
85-B-0196	ATLANTIS-C	Y		\$67,654.00	\$41,000.00	\$67,654.00	65	0
85-B-0196	EAST COAST	--		\$38,515.00	\$41,000.00	\$67,654.00	-6	-43
85-B-0196	J.M. CASHM	Y		\$32,500.00	\$41,000.00	\$67,654.00	116	31
85-B-0196	REV-LYN CO	Y		\$75,000.00	\$41,000.00	\$67,654.00	63	11
85-B-0196	SOLIMANDO	Y		\$116,900.00	\$41,000.00	\$67,654.00	125	73
85-B-0199	HEARTH PTS	Y		\$972,000.00	\$1,059,000.00	\$847,000.00	-5	15
85-B-0199	LOTT ELECT	Y		\$847,000.00	\$1,059,000.00	\$847,000.00	-20	0
85-B-0199	VISION DAT	?		\$0.00	\$1,059,000.00	\$847,000.00	-100	-100
85-B-0302	POSTFONED	Y					ERROR	ERROR
85-B-0313	MARTELL CO	Y		\$347,000.00	\$191,200.00	\$243,000.00	81	1
85-B-0313	PHA, INC	--		\$343,000.00	\$191,200.00	\$343,000.00	79	0
85-B-0313	DANLADI CO	Y	Y	\$423,000.00	\$191,200.00	\$343,000.00	121	23
85-B-0316	-LIE CONST	?		\$1,059,600.00	\$717,000.00	\$784,000.00	46	35
85-B-0316	-RNER-LIND	Y		\$1,054,500.00	\$717,000.00	\$784,000.00	47	35
85-B-0316	ARTCO CONT	Y		\$924,372.00	\$717,000.00	\$784,000.00	29	19
85-B-0316	BARTON & B	?		\$1,000,000.00	\$717,000.00	\$784,000.00	39	28
85-B-0316	ELGIN BLDR	Y		\$875,000.00	\$717,000.00	\$784,000.00	22	12
85-B-0316	FERNDAL E	?		\$119,958.00	\$717,000.00	\$784,000.00	-82	-85
85-B-0316	FILKER CON	?		\$1,200,000.00	\$717,000.00	\$784,000.00	67	33
85-B-0316	G.D. LEWIS	Y		\$784,000.00	\$717,000.00	\$784,000.00	9	0
85-B-0316	RELIANCE B	Y		\$1,000,000.00	\$717,000.00	\$784,000.00	35	28
85-B-0316	SCHILLER C	Y		\$887,300.00	\$717,000.00	\$784,000.00	24	13
85-B-0316	SITE DEVEL	Y		\$959,000.00	\$717,000.00	\$784,000.00	35	24
85-B-0324	EUGENE RIC	Y		\$69,370.00	\$37,370.00	\$61,000.00	141	47
85-B-0324	H.V. ALLEN	Y		\$61,000.00	\$37,370.00	\$61,000.00	53	0
85-B-0329	BARTON & B	Y		\$1,000,000.00	\$380,100.00	\$464,567.00	163	115
85-B-0329	ELGIN BUIL	Y		\$611,300.00	\$380,100.00	\$464,567.00	61	30
85-B-0329	FARVIEW CO	Y		\$654,360.00	\$380,100.00	\$464,567.00	72	41
85-B-0329	FELKER CON	Y		\$650,000.00	\$380,100.00	\$464,567.00	71	40
85-B-0329	PARKWOOD C	Y		\$495,757.00	\$380,100.00	\$464,567.00	30	7
85-B-0329	R.W. EDGAR	Y		\$571,600.00	\$380,100.00	\$464,567.00	51	23

CONTRACT#	OFFEROR	SE	S O E	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF A24
85-B-0323	SITE DEVEL	Y		\$640,500.00	\$380,100.00	\$464,567.00	69	68
85-B-0343	FIFING SVS	Y		\$69,933.00	\$101,000.00	\$69,933.00	-31	0
85-B-0343	TEMPED INC	Y		\$77,260.00	\$101,000.00	\$69,933.00	-24	10
85-B-0343	CAM AYC &	Y		\$116,323.00	\$101,000.00	\$69,933.00	12	62
85-B-0343	CONDITIONA	Y		\$114,400.00	\$101,000.00	\$69,933.00	13	64
85-B-0343	BODY BINDER	Y		\$133,376.00	\$101,000.00	\$69,933.00	33	92
85-B-0343	D DIXON DD	Y		\$139,650.00	\$101,000.00	\$69,933.00	39	100
85-B-0343	HAMMITT CO	Y		\$147,000.00	\$101,000.00	\$69,933.00	46	110
85-B-0382	SEA MARINE	Y		\$329,546.00	\$315,683.00	\$209,000.00	17	77
85-B-0382	BAY WELDN	Y		\$312,500.00	\$315,683.00	\$209,000.00	-1	56
85-B-0382	ERIM CONTR	Y		\$356,000.00	\$315,683.00	\$209,000.00	11	67
85-B-0382	CENTRAL ME	Y		\$262,000.00	\$315,683.00	\$209,000.00	-17	25
85-B-0382	CLIMATECH	Y		\$344,000.00	\$315,683.00	\$209,000.00	9	65
85-B-0382	DIERIS HTG	Y		\$307,000.00	\$315,683.00	\$209,000.00	-3	47
85-B-0382	F & H PLNG	Y		\$525,500.00	\$315,683.00	\$209,000.00	66	151
85-B-0382	I C. EQUIP	Y		\$321,000.00	\$315,683.00	\$209,000.00	2	54
85-B-0382	LAFATA COF	Y		\$352,240.00	\$315,683.00	\$209,000.00	12	69
85-B-0382	M G ELIVN	Y		\$264,000.00	\$315,683.00	\$209,000.00	-16	27
85-B-0382	MARIO MECH	Y		\$560,000.00	\$315,683.00	\$209,000.00	14	72
85-B-0382	MICHAEL C	Y		\$397,400.00	\$315,683.00	\$209,000.00	26	90
85-B-0382	R MARIO F	Y		\$324,000.00	\$315,683.00	\$209,000.00	3	55
85-B-0382	RAY-KAY IN	Y		\$258,000.00	\$315,683.00	\$209,000.00	-9	38
85-B-0382	SCOEHE & S	Y		\$245,700.00	\$315,683.00	\$209,000.00	-21	19
85-B-0382	STATE MECH	Y		\$464,000.00	\$315,683.00	\$209,000.00	47	122
85-B-0382	STEVEN'S T	Y		\$205,000.00	\$315,683.00	\$209,000.00	-34	0
85-B-0382	V & D FLRG	Y		\$287,314.00	\$315,683.00	\$209,000.00	-9	37
85-B-0403	ABEL WEIDE	Y		\$153,000.00	\$138,829.00	\$125,500.00	33	54
85-B-0403	COOLING CO	Y		\$240,599.00	\$138,829.00	\$125,500.00	75	55
85-B-0403	COTTMAN ME	Y		\$256,100.00	\$138,829.00	\$125,500.00	72	50
85-B-0403	DOLAN MECH	Y		\$135,750.00	\$138,829.00	\$125,500.00	-4	7
85-B-0403	KIRK BROTH	Y		\$193,960.00	\$138,829.00	\$125,500.00	44	59
85-B-0403	VOHLER BRO	Y		\$125,500.00	\$138,829.00	\$125,500.00	-10	0
85-B-0403	MECHANICAL	Y		\$163,975.00	\$138,829.00	\$125,500.00	22	35
85-B-0403	NORTH AMER	Y		\$243,000.00	\$138,829.00	\$125,500.00	75	94
85-B-0403	SCHAFER E	Y		\$162,971.00	\$138,829.00	\$125,500.00	17	30
85-B-0418	ABEL & HES	Y		\$123,900.00	\$133,000.00	\$86,999.00	-2	45
85-B-0418	CRISCILLE	Y		\$145,500.00	\$133,000.00	\$86,999.00	12	71
85-B-0418	GUARDIAN C	Y		\$128,279.00	\$133,000.00	\$86,999.00	-4	47
85-B-0418	HORN BROTH	Y		\$174,800.00	\$133,000.00	\$86,999.00	31	101
85-B-0418	J FONIDARI	Y		\$152,660.00	\$133,000.00	\$86,999.00	15	75
85-B-0418	JJ MERRIS	Y		\$98,858.00	\$133,000.00	\$86,999.00	-26	14
85-B-0418	LIBERTY BE	Y		\$86,950.00	\$133,000.00	\$86,999.00	-35	-0
85-B-0418	LYBURN CON	Y		\$221,000.00	\$133,000.00	\$86,999.00	66	154
85-B-0418	ROSTON INC	Y		\$116,000.00	\$133,000.00	\$86,999.00	-11	35
85-B-0425	A P ELEC C	Y		\$161,062.00	\$93,000.00	\$145,000.00	73	11
85-B-0425	GAUDELLI B	?		\$189,000.00	\$93,000.00	\$145,000.00	103	30
85-B-0425	MIED CONST	Y		\$181,543.00	\$93,000.00	\$145,000.00	95	25
85-B-0425	TAYRE CONE	Y		\$219,000.00	\$93,000.00	\$145,000.00	135	51
85-B-0425	UNITED CON	Y		\$145,000.00	\$93,000.00	\$145,000.00	56	0
85-B-0426	LOTT GROUP	Y		\$18,200.00	\$220,113.00	\$182,000.00	-92	-30
85-B-0426	HAMPTON BE	Y		\$362,800.00	\$220,113.00	\$182,000.00	65	55
85-B-0426	UNITED CON	Y		\$21,800.00	\$220,113.00	\$182,000.00	-90	-13

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AUA
85-B-0408	MAGNUM INC	Y		\$343,588.00	\$220,113.00	\$182,000.00	56	89
85-B-0408	ON F. GAVI	Y		\$364,648.00	\$220,113.00	\$182,000.00	75	111
85-B-0408	DUAL INC	Y		\$378,888.00	\$304,361.00		24	ERROR
85-B-0408	LANE CO.	Y		\$277,000.00	\$304,361.00		-9	ERROR
85-B-0408	MARTELL CO	Y		\$333,600.00	\$304,361.00		11	ERROR
85-B-0409	McALLISTER	Y		\$197,000.00	\$159,258.00	\$197,000.00	24	0
85-B-0409	McMULLEN P	Y		\$269,700.00	\$159,258.00	\$197,000.00	69	37
85-B-0409	ROLAND W	Y		\$224,399.00	\$195,771.00	\$224,399.00	15	0
85-B-0409	ATHAN CONS	Y		\$594,000.00	\$682,100.00	\$727,841.00	-13	-16
85-B-0409	DAVIESVILLE	Y		\$727,841.00	\$682,100.00	\$727,841.00	7	0
85-B-0409	MARTELL CO	Y		\$585,700.00	\$682,100.00	\$727,841.00	36	22
85-B-0409	McALLISTER	Y		\$937,517.00	\$682,100.00	\$727,841.00	37	29
85-B-0409	McMULLEN R	Y		\$814,180.00	\$682,100.00	\$727,841.00	19	12
85-B-0409	MILD CONST	Y		\$1,180,967.00	\$682,100.00	\$727,841.00	73	52
85-B-0409	PRATON CON	Y		\$664,450.00	\$682,100.00	\$727,841.00	27	19
85-B-0409	R. WIGAND	Y		\$748,430.00	\$682,100.00	\$727,841.00	10	3
85-B-0409	S. KANE &	Y		\$1,169,000.00	\$682,100.00	\$727,841.00	71	61
85-B-0409	DAHLADI CO	Y	Y	\$343,000.00	\$682,100.00	\$727,841.00	38	30
85-B-0409	ATHAN CONT	Y		\$438,000.00	\$595,300.00	\$438,000.00	-26	0
85-B-0409	B M DELTA	Y		\$483,711.00	\$595,300.00	\$438,000.00	-13	10
85-B-0409	GROVE ROOF	Y		\$467,738.00	\$595,300.00	\$438,000.00	-21	7
85-B-0409	J YONOLAKI	Y		\$597,600.00	\$595,300.00	\$438,000.00	0	35
85-B-0409	MARTELL CO	Y		\$578,600.00	\$595,300.00	\$438,000.00	-3	32
85-B-0409	MERIS CONS	Y		\$730,600.00	\$595,300.00	\$438,000.00	23	67
85-B-0409	MIND CONTR	Y		\$758,646.00	\$595,300.00	\$438,000.00	27	73
85-B-0409	PAN BUILDI	Y		\$643,000.00	\$595,300.00	\$438,000.00	9	48
85-B-0409	PIONEER CO	Y		\$443,000.00	\$595,300.00	\$438,000.00	-26	1
85-B-0409	PIRES CONS	Y		\$440,300.00	\$595,300.00	\$438,000.00	-26	1
85-B-0409	PROTON CON	Y		\$512,460.00	\$595,300.00	\$438,000.00	-11	22
85-B-0409	STAR BRITE	Y		\$513,150.00	\$595,300.00	\$438,000.00	-11	21
85-B-0409	CONDITIONE	Y		\$19,738.00	\$24,969.00	\$19,738.00	-21	0
85-B-0409	CONDITIONE	Y		\$19,738.00	\$24,969.00	\$19,738.00	-21	0
85-B-0409	HAMMITT CO	Y		\$29,200.00	\$24,969.00	\$19,738.00	17	48
85-B-0409	HAMMITT CO	Y		\$29,200.00	\$24,969.00	\$19,738.00	17	48
85-B-0409	HERRITT CO	Y		\$39,000.00	\$24,969.00	\$19,738.00	56	98
85-B-0409	HERRITT CO	Y		\$39,000.00	\$24,969.00	\$19,738.00	56	98
85-B-0409	THE GEORGE	Y		\$22,899.00	\$24,969.00	\$19,738.00	-8	16
85-B-0409	THE GEORGE	Y		\$22,899.00	\$24,969.00	\$19,738.00	-8	16
85-B-0440	ATLANTIC B	Y		\$110,990.00	\$70,000.00		59	ERROR
85-B-0449	BELLS ROOF	Y		\$224,500.00	\$166,500.00	\$168,999.00	20	33
85-B-0449	DESIGN ROO	Y		\$168,000.00	\$166,500.00	\$168,999.00	1	11
85-B-0449	EAGLE CORN	Y		\$182,616.00	\$166,500.00	\$168,999.00	-2	8
85-B-0449	ED JACQUE	Y		\$149,495.00	\$166,500.00	\$168,999.00	-20	-12
85-B-0449	NEW LONDON	Y		\$168,999.00	\$166,500.00	\$168,999.00	-9	0
85-B-0449	PERNIERE I	Y		\$207,940.00	\$166,500.00	\$168,999.00	11	26
85-B-0449	T.L.T CONS	Y		\$197,000.00	\$166,500.00	\$168,999.00	6	17
85-B-0450	C F I CONS	Y		\$143,175.00	\$51,400.00		57	ERROR
85-B-0450	SEM ELDS I	Y		\$60,970.00	\$51,400.00		-33	ERROR
85-B-0450	MARON CONS	Y		\$68,850.00	\$51,400.00		-25	ERROR
85-B-0450	NEWMAN JON	Y		\$24,365.00	\$51,400.00		-73	ERROR
85-B-0455	ATLANTIC B	Y		\$393,750.00	\$243,000.00	\$318,957.00	62	23
85-B-0455	CONSOLIDAT	Y		\$318,957.00	\$243,000.00	\$318,957.00	31	0

CONTRACT#	OFFEROR	SB	S D B	BID	GOVT EST	AWARD PRICE	% OF GOV'	% OF AWA
85-B-0455	FRAUGHT CO	Y		\$353,000.00	\$243,000.00	\$318,957.00	53	20
85-B-0455	-----	Y	--	\$0.00	\$243,000.00	\$318,957.00	0	0
85-B-0456	MAGNUM INC	Y		\$363,514.00	\$187,400.00		62	ERROR
85-B-0457	DESIGN ADD	Y		\$153,500.00	\$237,500.00	\$198,800.00	-16	0
85-B-0457	EAGLE CORP	Y		\$200,643.00	\$237,500.00	\$198,800.00	-16	1
85-B-0457	ED JACQUES	Y		\$169,663.00	\$237,500.00	\$198,800.00	-23	-15
85-B-0457	PERINERE I	Y		\$203,698.00	\$237,500.00	\$198,800.00	-12	5
85-B-0457	T L T CORP	Y		\$177,000.00	\$237,500.00	\$198,800.00	17	35
85-B-0461	CARMON COR	Y		\$51,637.00	\$60,996.00	\$53,460.00	50	72
85-B-0461	DI ECCO C	Y		\$36,445.00	\$60,996.00	\$53,460.00	53	80
85-B-0461	INDUSTRIAL	?		\$38,670.00	\$60,996.00	\$53,460.00	62	85
85-B-0461	LYNNWELL A	Y		\$114,553.00	\$60,996.00	\$53,460.00	88	115
85-B-0461	R T BETTEN	Y		\$97,460.00	\$60,996.00	\$53,460.00	60	82
85-B-0461	TC ELECTRI	Y		\$53,460.00	\$60,996.00	\$53,460.00	-12	0
85-B-0461	VINCENT J	Y		\$59,440.00	\$60,996.00	\$53,460.00	-3	11
85-B-0472	GAFFNY CO	Y		\$462,400.00	\$412,106.00	\$360,000.00	14	30
85-B-0472	I THORP CO	Y		\$554,400.00	\$412,106.00	\$360,000.00	35	54
85-B-0472	MASTER MEC	Y		\$350,000.00	\$412,106.00	\$360,000.00	-13	0
85-B-0472	TECH & ENG	Y		\$732,000.00	\$412,106.00	\$360,000.00	32	120
85-B-0476	FONTAS CON	Y		\$652,270.00	\$662,000.00	\$704,580.00	-4	-7
85-B-0476	MANULLEN P	Y		\$754,007.00	\$662,000.00	\$704,580.00	11	7
85-B-0476	PENN PERRY	Y		\$623,166.00	\$662,000.00	\$704,580.00	45	40
85-B-0476	FROTON CON	Y		\$745,450.00	\$662,000.00	\$704,580.00	9	6
85-B-0476	FO-HAF CON	Y		\$631,988.00	\$662,000.00	\$704,580.00	37	32
85-B-0476	WISARD ROD	Y		\$723,476.00	\$662,000.00	\$704,580.00	6	3
85-B-0476	DANLADI CO	Y	Y	\$1,091,300.00	\$662,000.00	\$704,580.00	60	55
85-B-0478	Arlington	Y	?	\$564,747.00	\$610,876.00	\$424,000.00	-8	33
85-B-0478	King Fiske	Y	?	\$424,000.00	\$610,876.00	\$424,000.00	-31	0
85-B-0478	Monroe Ent	Y	?	\$515,210.00	\$610,876.00	\$424,000.00	-14	24
85-B-0478	Vidette C	Y	?	\$515,961.00	\$610,876.00	\$424,000.00	1	46
85-B-0545	AERE & SVD	Y		\$451,310.00	\$276,000.00	\$196,161.00	67	135
85-B-0546	ABINGTON C	Y		\$199,431.00	\$276,000.00	\$196,161.00	-23	2
85-B-0546	BANCROFT C	?		\$214,800.00	\$276,000.00	\$196,161.00	-22	10
85-B-0546	BLAKE CORP	Y		\$262,783.00	\$276,000.00	\$196,161.00	-5	34
85-B-0546	CENTRAL ST	Y		\$286,452.00	\$276,000.00	\$196,161.00	5	47
85-B-0546	D L FOLIN	Y		\$343,868.00	\$276,000.00	\$196,161.00	27	76
85-B-0546	EUGENE RIC	Y		\$277,840.00	\$276,000.00	\$196,161.00	1	42
85-B-0546	GAFFNEY CO	Y		\$291,000.00	\$276,000.00	\$196,161.00	5	48
85-B-0546	H V ALLEN	Y		\$247,000.00	\$276,000.00	\$196,161.00	-11	26
85-B-0546	HOLDEN REF	?		\$267,159.00	\$276,000.00	\$196,161.00	-3	36
85-B-0546	IND WELDER	Y		\$267,772.00	\$276,000.00	\$196,161.00	-25	6
85-B-0546	MERRINACK	Y		\$322,500.00	\$276,000.00	\$196,161.00	17	64
85-B-0546	MIDDLESEX	Y		\$287,550.00	\$276,000.00	\$196,161.00	-14	21
85-B-0546	FRAUGHT CO	Y		\$294,000.00	\$276,000.00	\$196,161.00	7	50
85-B-0546	PROCESS EN	Y		\$298,294.00	\$276,000.00	\$196,161.00	-14	21
85-B-0546	STRUCTURAL	Y		\$271,400.00	\$276,000.00	\$196,161.00	-2	36
85-B-0546	WASHINGTON	Y		\$196,161.00	\$276,000.00	\$196,161.00	-29	0
85-B-0546	L A FROFEN	?		\$424,575.00	\$276,000.00	\$196,161.00	54	116
85-B-0619	GALYON CON	?		\$1,064,000.00	\$794,253.00	\$966,000.00	34	6
85-B-0619	VALQUEST CO	Y		\$177,500.00	\$794,253.00	\$966,000.00	-78	-61
85-B-0755	ANTRAC PAI	Y		\$371,843.71	\$759,000.00		36	ERROR
85-B-0755	ANNEX RR	Y		\$575,110.16	\$759,000.00		17	ERROR

CONTRACT#	OFFEROR	EB	S D B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AUA
85-B-0755	CENTRAL BN	Y		\$581,137.00	\$750,000.00		28	ERROR
85-B-0755	QUEEN CITY	Y		\$1,042,081.20	\$750,000.00		39	ERROR
85-B-0755	F D LONG C	Y		\$559,557.12	\$750,000.00		28	ERROR
85-B-0755	RAILROAD S	Y		\$1,059,105.74	\$750,000.00		41	ERROR
85-B-0755	SWANSON CO	Y		\$545,432.04	\$750,000.00		13	ERROR
85-B-1454	DUTRA/BLAC	Y		\$3,874,336.00		\$3,647,000.00	ERROR	6
85-B-1454	SPANDECK I	Y		\$3,647,000.00		\$3,647,000.00	ERROR	0
85-B-1454	WESTMONT I	Y		\$3,945,777.00		\$3,647,000.00	ERROR	6
85-B-1473	B L MONTA			\$15,000,000.00			ERROR	ERROR
85-B-1473	GENERAL CR			\$13,563,555.00			ERROR	ERROR
85-B-1473	INTERNATIO			\$20,593,301.00			ERROR	ERROR
85-B-1473	SPANDECK, Y			\$10,457,808.00			ERROR	ERROR
85-B-1473	WESTMONT I	Y		\$12,860,000.00			ERROR	ERROR
85-B-3881	GALYON CON	?		\$67,000.00	\$67,555.00	\$67,000.00	-1	0
85-B-3881	SEAPLES CO	?		\$112,300.00	\$67,555.00	\$67,000.00	66	66
85-B-4458	DE LORENCE	Y		\$1,179,660.50			ERROR	ERROR
85-B-4458	NU-WAY TFA	?		\$0.00			ERROR	ERROR
85-B-4458	TANTANGELO	Y		\$2,081,415.54			ERROR	ERROR
85-B-4513	ACME ELECT	Y		\$717,000.00	\$860,539.00	\$640,000.00	-17	12
85-B-4513	ALFRED J.	Y		\$640,000.00	\$860,539.00	\$640,000.00	-26	0
85-B-4513	BARNES ELE	Y		\$774,000.00	\$860,539.00	\$640,000.00	-10	21
85-B-4513	CARR & DUF	Y		\$807,787.00	\$860,539.00	\$640,000.00	-6	26
85-B-4513	HEARTH HTG	Y		\$713,000.00	\$860,539.00	\$640,000.00	-16	13
85-B-4513	RANDO CONB	Y		\$661,000.00	\$860,539.00	\$640,000.00	-23	3
85-B-4513	RAY ANGELI	Y		\$624,000.00	\$860,539.00	\$640,000.00	-21	7
85-B-4513	UNITED WIR	Y		\$787,000.00	\$860,539.00	\$640,000.00	-9	23
85-B-5523	ALEXANDER	Y		\$93,000.00	\$125,000.00	\$112,411.00	-22	-13
85-B-5523	FRANK BIRN	?		\$171,700.00	\$125,000.00	\$112,411.00	37	53
85-B-5523	HAMPTON EE	Y		\$187,400.00	\$125,000.00	\$112,411.00	50	67
85-B-5523	MAGNUM, IN	Y		\$159,965.00	\$125,000.00	\$112,411.00	28	42
85-B-5523	PIONEER CO	Y		\$192,000.00	\$125,000.00	\$112,411.00	54	71
85-B-5523	GAUNT CON	Y		\$172,500.00	\$172,500.00	\$112,411.00	0	55
85-B-5523	DANLADI CO	Y	Y	\$132,400.00	\$125,000.00	\$112,411.00	6	18
85-B-5523	FRANK BIRN	?		\$171,700.00	\$125,000.00	\$112,411.00	37	53
85-B-5523	FAPAS & EU	Y		\$112,411.00	\$125,000.00	\$112,411.00	-10	0
85-B-5739	DELL-PENNY	Y		\$192,415.00	\$200,000.00	\$193,000.00	-34	-31
85-B-5739	MARTELL CO	Y		\$345,400.00	\$200,000.00	\$193,000.00	73	79
85-B-5739	DANLADI CO	Y	Y	\$234,000.00	\$200,000.00	\$193,000.00	17	21
85-B-5801	ANGELDO'S C	Y		\$245,000.00	\$170,121.00		44	ERROR
85-B-5801	E.J. ELECT			\$109,000.00	\$170,121.00		-36	ERROR
85-B-5801	ELECTRICAL	Y		\$125,000.00	\$170,121.00		-27	ERROR
85-B-5801	EROD INERI	Y		\$81,500.00	\$170,121.00		-52	ERROR
85-B-5801	GAUNT CON	Y		\$147,700.00	\$170,121.00		-13	ERROR
85-B-5801	HAMPTON EE	Y		\$144,950.00	\$170,121.00		-15	ERROR
85-B-5801	JOHN F DO	Y		\$159,500.00	\$170,121.00		-18	ERROR
85-B-5801	PIONEER CO	Y		\$155,000.00	\$170,121.00		-9	ERROR
85-B-5801	RAY ANGELI	Y		\$172,000.00	\$170,121.00		1	ERROR
85-B-5801	RAYMOND W	Y		\$120,000.00	\$170,121.00		-29	ERROR
85-B-6019	J McORRHI	Y		\$67,963.93	\$75,500.00	\$67,963.00	-10	0
85-B-6019	MAYER BRD	Y		\$54,500.00	\$75,500.00	\$67,963.00	12	24
85-B-6019	RUFETZ BRD	N		\$71,960.00	\$75,500.00	\$67,963.00	-2	5
85-B-7075	CSR RAILRO	Y		\$2,164,291.00	\$1,750,722.00	\$1,716,000.00	24	25

CONTRACT#	OFFEROR	SE	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
85-B-7075	CENTRAL EN	Y		\$2,186,142.00	\$1,750,722.00	\$1,716,000.00	25	27
85-B-7075	RAILROAD S	Y		\$1,839,950.00	\$1,750,722.00	\$1,716,000.00	5	7
85-B-7075	SVANSON CO	Y		\$1,716,000.00	\$1,750,722.00	\$1,716,000.00	-2	0
85-B-7097	STREICHER	Y		\$146,262.00	\$133,500.00		10	ERROR
85-B-7097	LITTLE CON	Y		\$208,000.00	\$133,500.00		56	ERROR
85-B-7097	GULF SOUTH	Y		\$213,658.00	\$133,500.00		60	ERROR
85-B-7097	BATT CONST	Y		\$168,879.00	\$133,500.00		27	ERROR
85-B-7097	SUPERIOR L	Y		\$149,600.00	\$133,500.00		12	ERROR
85-B-7097	LINDSEY'S	Y		\$159,957.00	\$133,500.00		5	ERROR
85-B-7097	NEIDIGH CO	Y		\$121,731.00	\$133,500.00		-9	ERROR
85-B-7097	LUBURN CON	Y		\$248,700.00	\$133,500.00		86	ERROR
85-B-7097	T & G CONS	Y		\$120,989.00	\$133,500.00		-9	ERROR
85-B-7217	JUDD CONST	Y		\$395,157.00	\$290,303.00		36	ERROR
85-B-7217	SCEID CONS	Y		\$298,900.00	\$290,303.00		3	ERROR
85-B-7706	SUN OHIO C			\$73,216.00	\$82,600.00	\$58,100.00	-11	26
85-B-7706	ELECTRIC E			\$65,618.00	\$82,600.00	\$58,100.00	-16	20
85-B-7706	ac electri			\$98,700.00	\$82,600.00	\$58,100.00	19	70
85-B-7706	WESTINGHO			\$58,100.00	\$82,600.00	\$58,100.00	-30	0
85-B-7706	ALD-CASS E			\$67,500.00	\$82,600.00	\$58,100.00	-18	15
85-B-7706	UTILITY DY			\$78,300.00	\$82,600.00	\$58,100.00	-5	35
85-B-7887	MEADER CON	Y		\$63,880.00	\$516,000.00		-88	ERROR
85-B-7887	JOHN DILKS	Y		\$48,264.48	\$51,600.00		-6	ERROR
85-B-7887	ALDRIDGE E	Y		\$29,300.00	\$51,600.00		-24	ERROR
85-B-7887	UTILITLY D	Y		\$38,000.00	\$51,600.00		-26	ERROR
85-B-7924	CONTECK AS	Y		\$15,210.00	\$10,370.00		56	ERROR
85-B-7924	JET STAR N	Y		\$20,000.00	\$10,370.00		93	ERROR
85-B-7924	LEO MONDAY	Y		\$5,000.00	\$10,370.00		-42	ERROR
85-B-7924	MERIDIAN C	Y		\$10,690.00	\$10,370.00		3	ERROR
85-B-7924	MIDWEST SE	T		\$9,000.00	\$10,370.00		-13	ERROR
85-B-7932	PAULSEN PA	Y		\$69,500.00	\$35,216.00	\$24,900.00	97	179
85-B-7932	TINY'S CON	Y		\$24,900.00	\$35,216.00	\$24,900.00	-29	0
85-B-7932	JACOB & SO	Y		\$32,493.00	\$35,216.00	\$24,900.00	-8	30
85-B-7932	GLAKES CON	Y		\$80,200.00	\$35,216.00	\$24,900.00	128	222
85-B-7932	R A. PETER	Y		\$32,566.00	\$35,216.00	\$24,900.00	-8	31
85-B-7932	BARBETTA C			\$35,000.00	\$35,216.00	\$24,900.00	-1	41
85-B-7932	MIDWEST SE			\$24,995.00	\$35,216.00	\$24,900.00	-29	0
85-B-7938	NORTH AMER	Y		\$242,000.00	\$153,841.00	\$178,654.00	57	35
85-B-7938	KOETZ BART	Y		\$282,000.00	\$153,841.00	\$178,654.00	83	58
85-B-7938	BERT C. YO	Y		\$178,654.00	\$153,841.00	\$178,654.00	15	0
85-B-7938	DOUGLASS C	Y		\$198,000.00	\$153,841.00	\$178,654.00	29	11
85-B-7938	GEO W. KEN	Y		\$229,900.00	\$153,841.00	\$178,654.00	49	29
85-B-7945	H.V. ALLEN			\$152,400.00	\$143,341.00	\$112,600.00	6	35
85-B-7945	L. PUGH &			\$148,476.00	\$143,341.00	\$112,600.00	4	32
85-B-7945	CENTURY AU			\$112,600.00	\$143,341.00	\$112,600.00	-21	0
85-B-9031	GAUNTT CON	Y		\$148,500.00	\$179,995.00	\$127,190.00	-17	17
85-B-9031	JACK COHEN	Y		\$136,000.00	\$179,995.00	\$127,190.00	-24	1016
85-B-9031	JJ RINK BL	Y		\$140,000.00	\$179,995.00	\$127,190.00	-22	10
85-B-9031	JOHN P DON	Y		\$181,800.00	\$179,995.00	\$127,190.00	-27	4
85-B-9031	MAGNUM INC	Y		\$128,000.00	\$179,995.00	\$127,190.00	-29	1
85-B-9031	MARTELL CO	Y		\$143,500.00	\$179,995.00	\$127,190.00	-20	13
85-B-9031	PAN BUILDI	Y		\$595,000.00	\$179,995.00	\$127,190.00	231	368
85-B-9031	SCOBRETT C	Y		\$178,412.00	\$179,995.00	\$127,190.00	-1	40

CONTRACT#	OFFEROR	SB	S.O.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
85-B-9031	STAATS CON	Y		\$127,190.00	\$175,995.00	\$127,190.00	-29	0
85-B-9031	UNITED FAR	Y		\$0.00	\$179,995.00	\$127,190.00	-100	-100
85-B-9031	WILLIAM F	Y		\$158,556.00	\$179,995.00	\$127,190.00	-12	28
85-B-9031	RIVERIA CO	?	Y	\$0.00	\$179,995.00	\$127,190.00	-100	-100
85-B-9245	JUD CONST	Y		\$49,493.00	\$31,100.00	\$49,493.00	59	0
85-C-0401	C & B CONS	?		\$118,998.00			ERROR	ERROR
85-C-0401	HUGO KEY &	Y		\$167,647.00			ERROR	ERROR
85-C-4778	ACHE ELECT	Y		\$468,515.00	\$265,717.00		76	ERROR
85-C-4778	H V ALLEN	Y		\$464,000.00	\$265,717.00		75	ERROR
85-C-4778	ALFRED J.		Y	\$389,400.00	\$265,717.00		47	ERROR
85-C-4778	H & M ELEC	Y		\$385,768.00	\$265,717.00		46	ERROR
85-C-4778	SG. CALIF	Y		\$391,000.00	\$265,717.00		47	ERROR
85-C-4778	BUCK LINE	Y		\$524,000.00	\$265,717.00		135	ERROR
85-C-4778	RANES CONS	Y		\$421,600.00	\$265,717.00		59	ERROR
85-C-4778	NUCERO ELE	Y		\$494,000.00	\$265,717.00		86	ERROR
85-C-4778	THE LOTT &	Y		\$628,000.00	\$265,717.00		136	ERROR
85-C-4778	CAPR & STU	Y		\$565,875.00	\$265,717.00		120	ERROR
86-E-0005	MARTELL CO	Y		\$239,700.00	\$79,660.00	\$0.00	201	ERROR
86-E-0011	CARMONE CO	Y		\$495,427.00	\$320,000.00		55	ERROR
86-E-0011	K THOMPSON	Y		\$504,000.00	\$320,000.00		56	ERROR
86-E-0022	A J MAGGI	Y		\$2,549,000.00	\$2,500,000.00	\$2,696,000.00	18	9
86-E-0022	ELINGERMAN	Y		\$2,798,160.00	\$2,500,000.00	\$2,696,000.00	12	4
86-E-0022	G. BLUIDZI	Y		\$2,699,000.00	\$2,500,000.00	\$2,696,000.00	9	0
86-E-0022	KOVLIC CO	Y		\$2,555,352.00	\$2,500,000.00	\$2,696,000.00	16	10
86-E-0025	MARTELL CO	Y		\$3,469,000.00	\$2,031,239.00	\$2,215,721.00	70	55
86-E-0025	RIPPER INC	Y		\$2,215,721.00	\$2,031,239.00	\$2,215,721.00	9	0
86-E-0026	BIANCHI TR	N		\$213,000.00	\$0.00	\$1,174,777.00	ERROR	-48
86-E-0026	C O A C IN	Y		\$1,077,000.00	\$0.00	\$1,174,777.00	ERROR	-6
86-E-0026	INTERN'L	Y		\$1,616,675.00	\$0.00	\$1,174,777.00	ERROR	36
86-E-0026	J E. SEGNA	Y		\$525,000.00	\$0.00	\$1,174,777.00	ERROR	-47
86-E-0026	CBE TECHN	N		\$1,460,000.00	\$0.00	\$1,174,777.00	ERROR	24
86-E-0026	BOONCE CON	Y		\$1,239,275.00	\$0.00	\$1,174,777.00	ERROR	5
86-E-0029	ABNE & BVD	Y		\$467,150.00	\$229,000.00	\$129,500.00	104	261
86-E-0029	E M AUDIT	Y		\$359,755.00	\$229,000.00	\$129,500.00	57	178
86-E-0029	ENERGY ECO	Y		\$149,863.00	\$229,000.00	\$129,500.00	-35	16
86-E-0029	HARCO CORP	Y		\$384,560.00	\$229,000.00	\$129,500.00	59	182
86-E-0029	JJ D'ROURD	Y		\$373,400.00	\$229,000.00	\$129,500.00	63	188
86-E-0029	PCA ENG	Y		\$125,500.00	\$229,000.00	\$129,500.00	-43	0
86-E-0029	FRAUGHT CO	Y		\$377,700.00	\$229,000.00	\$129,500.00	65	192
86-E-0029	R R MCNELO	Y		\$228,529.00	\$229,000.00	\$129,500.00	-0	75
86-E-0029	SINDETEN C	Y		\$217,202.00	\$229,000.00	\$129,500.00	-5	68
86-E-0031	DRUM CONST	Y		\$18,913.76	\$25,000.00	\$58,608.00	-24	-69
86-E-0031	JAMES J. A	Y		\$19,789.31	\$25,000.00	\$58,608.00	-21	-66
86-E-0031	KILLER & S	Y		\$15,752.63	\$25,000.00	\$58,608.00	-37	-73
86-E-0031	POLARIS CO	Y		\$18,060.86	\$25,000.00	\$58,608.00	-26	-69
86-E-0031	TONY DEPAU	Y		\$21,104.80	\$25,000.00	\$58,608.00	-16	-64
86-E-0039	R. P. SANW	Y		\$693,038.00	\$665,000.00		4	ERROR
86-E-0039	MARON CONS	Y		\$916,641.00	\$665,000.00		38	ERROR
86-E-0042	BRIAN CONS	Y		\$222,000.00	\$172,800.00	\$198,500.00	28	12
86-E-0042	C&T ASSOC	Y		\$247,565.00	\$172,800.00	\$198,500.00	44	15
86-E-0042	POULARDS LG	Y		\$159,500.00	\$172,800.00	\$198,500.00	15	0
86-E-0042	RANCO CONS	Y		\$141,500.00	\$172,800.00	\$198,500.00	-17	-28

CONTRACT#	OFFEROR	SE	S D E	EID	GOV'T EST	AWARD PRICE	% OF GOV'T	% OF AWA
86-E-0042	ROSE-APAC	Y	Y	\$388,668.00	\$172,800.00	\$198,500.00	114	86
86-B-0043	GAUNT CON	Y		\$3,088,000.00	\$2,900,000.00	\$3,088,000.00	6	0
86-E-0048	BANLADY CO	Y	Y	\$3,631,000.00	\$1,900,000.00	\$2,038,000.00	25	18
86-B-0060	B S MCCARE	Y		\$470,000.00	\$235,000.00	\$470,000.00	100	0
86-B-0060	DAYFRING	Y		\$534,540.00	\$235,000.00	\$470,000.00	127	14
86-B-0061	ANGELO IAF	Y		\$3,685,721.75	\$2,902,000.00	\$2,934,577.00	10	5
86-B-0061	AFTCO CONS	Y		\$2,934,577.00	\$2,802,000.00	\$2,934,577.00	5	0
86-B-0061	DEFENDABLE	Y		\$3,473,000.00	\$2,802,000.00	\$2,934,577.00	-12	-16
86-B-0061	DURABLE IN	Y		\$3,181,000.00	\$2,802,000.00	\$2,934,577.00	11	7
86-B-0061	SITE DEVEL	Y		\$2,952,000.00	\$2,802,000.00	\$2,934,577.00	5	1
86-B-0061	TONY ANGEL	Y		\$3,295,000.00	\$2,802,000.00	\$2,934,577.00	18	12
86-B-0063	CHAS E LI	Y		\$492,000.00	\$317,614.00	\$354,037.00	55	35
86-B-0063	AIB ELEC &	Y		\$354,037.00	\$317,614.00	\$354,037.00	11	0
86-E-0063	HW GOLDEN	Y		\$431,977.00	\$317,614.00	\$354,037.00	36	13
86-E-0063	DIAMOND BA	Y		\$543,000.00	\$317,614.00	\$354,037.00	73	55
86-B-0063	E.L. MITCH	Y		\$463,700.00	\$317,614.00	\$354,037.00	48	38
86-B-0063	LABAU ELEC	Y		\$437,975.00	\$317,614.00	\$354,037.00	38	24
86-B-0063	INTERSTATE	Y		\$480,500.00	\$317,614.00	\$354,037.00	51	36
86-B-0068	STRUCTURAL	Y		\$343,543.00	\$1,104,970.00		-24	ERROR
86-B-0068	SCOTA ELAC	Y		\$1,641,600.00	\$1,104,970.00		49	ERROR
86-B-0068	T J MADDEM	Y		\$715,000.00	\$1,104,970.00		-35	ERROR
86-B-0068	SANTARO IN	Y		\$1,285,673.00	\$1,104,970.00		16	ERROR
86-B-0068	J PATARICO	?		\$1,390,000.00	\$1,104,970.00		26	ERROR
86-B-0068	B S MCCOFE	Y		\$1,157,654.00	\$1,104,970.00		5	ERROR
86-B-0068	STRUCTURAL	Y		\$843,548.00	\$1,104,970.00		-24	ERROR
86-B-0068	CONTO BLK	Y		\$1,541,600.00	\$1,104,970.00		49	ERROR
86-B-0068	T J MADDEM	Y		\$715,000.00	\$1,104,970.00		-35	ERROR
86-B-0068	SANTARO IN	Y		\$1,285,673.00	\$1,104,970.00		16	ERROR
86-B-0068	J TALARICO	?		\$1,390,000.00	\$1,104,970.00		26	ERROR
86-B-0068	B S MCCARE	Y		\$1,157,654.00	\$1,104,970.00		5	ERROR
86-B-0068	DOMINIC P.	Y		\$221,779.00	\$217,330.00	\$221,779.00	2	0
86-B-0068	IVERSON CO	Y		\$258,564.00	\$217,330.00	\$221,779.00	19	17
86-B-0068	McLANE CON	Y		\$259,273.00	\$217,330.00	\$221,779.00	24	21
86-B-0097	A F LUBI	Y		\$3,344,000.00	\$7,400,000.00	\$8,100,660.00	26	15
86-B-0097	CATAMOUNT	N		\$3,500,000.00	\$7,400,000.00	\$8,100,660.00	15	9
86-B-0097	GILBERNE BL	N		\$3,265,540.00	\$7,400,000.00	\$8,100,660.00	12	2
86-B-0097	TRATORAS	N		\$10,095,000.00	\$7,400,000.00	\$8,100,660.00	36	25
86-B-0107	INSTRUMENT	N		\$778,885.00	\$750,000.00	\$778,885.00	4	0
86-B-0107	MOORE PROD	N		\$731,661.00	\$750,000.00	\$778,885.00	-2	-6
86-B-0107	WESTCOTT E	Y		\$942,450.00	\$750,000.00	\$778,885.00	26	22
86-B-0131	BAROBEFT C	Y		\$51,250.00	\$37,000.00		39	ERROR
86-B-0131	BOSHEN EXC	Y		\$73,000.00	\$37,000.00		97	ERROR
86-B-0131	GRAND BANK	Y		\$156,000.00	\$37,000.00		312	ERROR
86-B-0131	WYMAN & SI	Y		\$45,770.00	\$37,000.00		35	ERROR
86-B-0134	PIPING SYS	Y		\$115,318.00	\$144,966.00	\$115,318.00	-20	0
86-B-0134	D. DIYON D	Y		\$143,900.00	\$144,966.00	\$115,318.00	-1	25
86-B-0134	HART ENG C	Y		\$147,800.00	\$144,966.00	\$115,318.00	2	28
86-B-0134	SHAFED COP	Y		\$173,554.00	\$144,966.00	\$115,318.00	22	53
86-B-0134	PROCESS EN	Y		\$173,774.00	\$144,966.00	\$115,318.00	23	55
86-B-0134	F.J. SANDE	Y		\$192,348.00	\$144,966.00	\$115,318.00	33	67
86-B-0134	PROMET MAR	Y		\$214,830.00	\$144,966.00	\$115,318.00	48	86
86-B-0138	RANCO CONS	Y		\$236,200.00	\$254,900.00		-7	ERROR

CONTRACT#	OFFEROR	SS	S D E	EID	GOV'T EST	AWARD PRICE	%OF GOV'T	% OF AUA
86-B-0188	GROVE ROOF	Y		\$654,540.00	\$254,500.00		157	ERROR
86-B-0188	MESH PIPIN	Y		\$314,200.00	\$254,500.00		23	ERROR
86-B-0188	THOMAS P	Y		\$221,780.00	\$254,500.00		27	ERROR
86-B-0188	GIULIANI CO	Y		\$217,779.00	\$254,500.00		-11	ERROR
86-B-0188	DANLADI CO	Y		\$373,000.00	\$254,500.00		45	ERROR
86-B-0188	PNN CONST	Y		\$256,600.00	\$254,500.00		-7	ERROR
86-B-0188	PARKS & BU	Y		\$204,211.00	\$254,500.00		-20	ERROR
86-B-0188	GIANNA GEP	Y		\$299,000.00	\$254,500.00		-5	ERROR
86-B-0188	SCARFETT C	Y		\$216,025.00	\$254,500.00		-14	ERROR
86-B-0156	Pressure C	Y		\$4,082,271.00	\$2,167,633.00	\$2,582,345.00	87	87
86-B-0156	Dia Hansen	Y		\$4,004,295.50	\$2,267,633.00	\$2,582,345.00	77	55
86-E-0300	ABINGTON C	Y		\$470,000.00	\$424,710.00	\$449,000.00	11	5
86-E-0300	DALVOG INC	?		\$465,000.00	\$424,710.00	\$449,000.00	9	4
86-B-0300	GAFFNY COF	Y		\$439,000.00	\$424,710.00	\$449,000.00	17	11
86-E-0300	HOLDEN FOD	Y		\$449,000.00	\$424,710.00	\$449,000.00	6	0
86-B-0300	JANUS INC	Y		\$521,000.00	\$424,710.00	\$449,000.00	23	15
86-B-0300	FRAUGHT CO	Y		\$580,000.00	\$424,710.00	\$449,000.00	37	29
86-B-0300	PROCEED EN	Y		\$515,420.00	\$424,710.00	\$449,000.00	25	13
86-B-0307	MID MAINE	Y		\$379,000.00	\$359,457.00	\$355,700.00	93	7
86-E-0307	WYMAN & EI	Y		\$355,700.00	\$359,457.00	\$355,700.00	57	0
86-E-0307	NO BIDS RE	-	-	\$0.00	\$0.00	\$0.00	0	0
86-B-0303	A F WHITAC	Y		\$314,200.00	\$182,000.00		73	ERROR
86-B-0303	D L FOULIN	Y		\$325,500.00	\$182,000.00		79	ERROR
86-B-0303	-----	Y	--	\$0.00	\$0.00	\$0.00	0	0
86-E-0310	CONSOLIDAT	?		\$525,263.00	\$515,555.00	\$565,055.00	21	11
86-B-0310	GRIFOD INC	Y		\$518,399.50	\$515,555.00	\$565,055.00	20	9
86-B-0310	JON CONST	Y		\$595,055.00	\$515,555.00	\$565,055.00	16	5
86-E-0314	MAREL CONG	Y		\$47,640.00	\$82,441.00	\$47,640.00	47	0
86-E-0314	A J BRUND	Y		\$34,315.00	\$82,441.00	\$47,640.00	36	35
86-E-0315	BAY WEST E	Y		\$155,000.00	\$155,355.00	\$157,850.00	18	17
86-B-0315	D E WILLIA	Y		\$183,610.00	\$155,355.00	\$157,850.00	21	10
86-E-0315	EVERTECH E	Y		\$246,091.00	\$155,355.00	\$157,850.00	57	55
86-B-0315	HARRINGTON	Y		\$158,922.00	\$155,355.00	\$157,850.00	2	1
86-B-0315	RESERVE EL	Y		\$157,950.00	\$155,355.00	\$157,850.00	1	0
86-B-0315	LANE CO	Y		\$1,627,000.00	\$1,077,000.00	\$577,505.00	51	182
86-B-0316	HELROSE UT	Y		\$1,216,065.00	\$1,077,000.00	\$577,505.00	13	111
86-B-0316	MONTAFOS C	Y		\$1,505,175.00	\$1,077,000.00	\$577,505.00	68	213
86-B-0316	SHAFER & I	Y		\$2,071,227.00	\$1,077,000.00	\$577,505.00	92	193
86-B-0316	THOMAS p C	Y		\$1,832,901.00	\$1,077,000.00	\$577,505.00	24	131
86-E-0316	DANLADI CO	Y	Y	\$1,650,058.82	\$1,077,000.00	\$577,505.00	53	185
86-B-0402	A F WHITA	Y		\$248,677.00	\$190,000.00		31	ERROR
86-E-0402	COLVELL CO	Y		\$242,664.00	\$190,000.00		28	ERROR
86-B-0402	CONSOLIDAT	Y		\$264,990.00	\$190,000.00		50	ERROR
86-B-0402	E L SHEA	Y		\$211,707.00	\$190,000.00		11	ERROR
86-E-0402	NORTHERN M	Y		\$228,905.00	\$190,000.00		20	ERROR
86-B-0402	QVELLET CO	Y		\$224,355.00	\$190,000.00		18	ERROR
86-B-0402	FENTA COFF	Y		\$239,120.00	\$190,000.00		52	ERROR
86-E-0403		Y			\$0.00		ERROR	ERROR
86-E-0403	MAFTELL CO	Y		\$89,300.00	\$92,114.00		-9	ERROR
86-E-0403	MONTAFOS C	Y		\$71,200.00	\$92,114.00		-27	ERROR
86-B-0403	PANCITTA E	Y		\$89,000.00	\$92,114.00		-9	ERROR
86-E-0403	CARROLL BL	Y		\$73,700.00	\$92,114.00	\$78,700.00	-4	0

CONTRACT#	OFFEROR	SB	S.D.B.	SID	GOV'T EST	AWARD PRICE	% OF GOV'T	% OF AWA
86-B-0405	DENVALT IN	Y		\$93,500.00	\$81,688.00	\$78,700.00	14	18
86-B-0405	LYBURN CON	Y		\$137,100.00	\$81,688.00	\$78,700.00	68	74
86-B-0409	METRO-WIND	Y		\$80,612.00	\$81,688.00	\$78,700.00	11	15
86-B-0414	ARTHUR BOO	--		\$151,300.00	\$155,300.00	\$115,730.00	-3	31
86-B-0414	CITY FENCE	Y		\$152,603.00	\$155,300.00	\$115,730.00	24	66
86-B-0414	EXPERT FEN	--		\$115,730.00	\$155,300.00	\$115,730.00	-25	0
86-B-0415	CIALDEA EL	Y		\$255,000.00	\$183,784.00	\$232,000.00	35	10
86-B-0415	FRITZ CONE	Y		\$240,320.00	\$183,784.00	\$232,000.00	27	4
86-B-0415	HAMMITT CO	Y		\$232,000.00	\$183,784.00	\$232,000.00	23	0
86-B-0415	HARTFORD C	Y		\$247,747.00	\$183,784.00	\$232,000.00	31	7
86-B-0417	DESIGN ROD	Y		\$234,000.00	\$170,000.00	\$174,444.00	39	34
86-B-0417	DIRECTOR CO	Y		\$174,444.00	\$170,000.00	\$174,444.00	3	0
86-B-0417	SHAW CONST	Y		\$196,500.00	\$170,000.00	\$174,444.00	16	13
86-B-0417	TITAN RODS	Y		\$195,000.00	\$170,000.00	\$174,444.00	16	14
86-B-0417	-----	--	--	\$0.00	\$0.00	\$174,444.00	0	0
86-B-0418	GAFFNEY CO	Y		\$214,650.00	\$177,530.00	\$223,500.00	77	41
86-B-0418	HAMMITT CO	Y		\$223,500.00	\$177,530.00	\$223,500.00	26	0
86-B-0419	CARPONE CO	Y		\$97,639.00	\$100,432.00	\$97,639.00	-3	0
86-B-0419	DI RODCA C	Y		\$119,500.00	\$100,432.00	\$97,639.00	19	20
86-B-0419	RODWELL I	Y		\$209,995.00	\$100,432.00	\$97,639.00	109	115
86-B-0421	Narragansett	Y	N	\$56,685.00	\$52,500.00	\$56,685.00	7	0
86-B-0422	BRITELITE	Y		\$112,700.00	\$154,496.00	\$57,700.00	-27	55
86-B-0422	SAL ELECTF	Y		\$124,000.00	\$154,496.00	\$57,700.00	-20	115
86-B-0422	J G SALAS	Y		\$57,700.00	\$154,496.00	\$57,700.00	-63	0
86-B-0422	LADUCA AES	Y		\$86,560.00	\$154,496.00	\$57,700.00	-44	51
86-B-0422	TFI INC	Y		\$108,065.00	\$154,496.00	\$57,700.00	-30	37
86-B-0424	CITY VENTU	Y		\$159,320.00	\$114,820.00		35	ERROR
86-B-0424	POLECIA CO	Y		\$128,130.00	\$114,820.00		12	ERROR
86-B-0425	EDWARD WIT			\$1,136,054.00	\$945,000.00		20	ERROR
86-B-0425	FONTAS CON			\$664,185.00	\$945,000.00		-30	ERROR
86-B-0425	FREEMORE C	Y		\$544,714.00	\$945,000.00		-0	ERROR
86-B-0430	ELCOR ELEC	Y		\$14,600.00	\$17,776.00		38	ERROR
86-B-0430	JACO COHEN	?		\$16,374.00	\$17,776.00		3	ERROR
86-B-0430	JOB OCTUMA	Y		\$22,350.00	\$17,776.00		26	ERROR
86-B-0430	PENN-ARGUE	Y		\$22,153.00	\$17,776.00		25	ERROR
86-B-0430	SAFECOR	Y		\$24,050.00	\$17,776.00		35	ERROR
86-B-0433	BEST-TEMP	Y		\$91,500.00	\$112,632.00	\$91,500.00	-19	0
86-B-0433	BRITE LITE	Y		\$92,700.00	\$112,632.00	\$91,500.00	-13	1
86-B-0433	GRANTON ME	Y		\$96,350.00	\$112,632.00	\$91,500.00	-13	7
86-B-0433	NJP A/C &	Y		\$53,000.00	\$112,632.00	\$91,500.00	-12	7
86-B-0442	ABIELE CON	Y		\$2,112,770.00	\$1,409,169.00	\$1,764,000.00	50	20
86-B-0442	ELCOR CONT	Y		\$1,576,000.00	\$1,409,169.00	\$1,764,000.00	40	12
86-B-0442	EXPERT ELE	Y		\$1,639,363.00	\$1,409,169.00	\$1,764,000.00	20	-4
86-B-0442	G & R ELEC	Y		\$1,964,000.00	\$1,409,169.00	\$1,764,000.00	35	11
86-B-0442	J G SALAS	Y		\$1,977,700.00	\$1,409,169.00	\$1,764,000.00	40	12
86-B-0442	VALQUEST C	Y		\$1,772,000.00	\$1,409,169.00	\$1,764,000.00	26	0
86-B-0445	ADKE FIRE	Y		\$23,680.00	\$52,443.00	\$23,680.00	-55	0
86-B-0447	AMERICAN P	--		\$54,055.00	\$56,890.00	\$54,055.00	-5	0
86-B-0447	PANZITTA E	--		\$73,000.00	\$56,890.00	\$54,055.00	23	35
86-B-0456	E.M. AUDET	Y		\$200,635.00	\$176,395.00	\$126,300.00	24	75
86-B-0456	E.M. AUDET	Y		\$200,635.00	\$176,395.00	\$126,300.00	24	75
86-B-0456	LYNNWELL A	Y		\$135,000.00	\$176,395.00	\$126,300.00	9	55

CONTRACT#	OFFEROR	IS	S O E	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF A44
86-B-0466	LYNNWELL A	Y		\$155,300.00	\$178,395.00	\$126,300.00	9	55
86-B-0466	MOMAWN VAL	Y		\$126,300.00	\$178,395.00	\$126,300.00	-23	0
86-B-0466	THE RYAN C	Y		\$133,800.00	\$178,395.00	\$126,300.00	-22	10
86-B-0466	THE RYAN C	Y		\$133,800.00	\$178,395.00	\$126,300.00	-22	10
86-B-0464	GEN. EASTER	Y		\$135,650.00	\$146,000.00	\$136,650.00	-6	0
86-B-0464	GEO. MOHRE	Y		\$132,220.00	\$146,000.00	\$136,650.00	11	19
86-B-0464	MAFAPANIS	Y		\$155,500.00	\$146,000.00	\$136,650.00	9	16
86-B-0464	McALLISTER	Y		\$163,000.00	\$146,000.00	\$136,650.00	15	23
86-B-0464	PIONEER CO	Y		\$142,000.00	\$146,000.00	\$136,650.00	-3	4
86-B-0466	COTTMAN ME	Y		\$128,100.00	\$120,086.00	\$128,100.00	7	0
86-B-0466	GAUBELLI E	Y		\$128,900.00	\$120,086.00	\$126,100.00	7	1
86-B-0466	MOHLER BPO	Y		\$137,000.00	\$120,086.00	\$128,100.00	14	7
86-B-0466	SPELLY'S D	Y		\$163,000.00	\$120,086.00	\$128,100.00	40	31
86-B-0467	EPIC CONTR	Y		\$369,100.00	\$192,216.00		92	ERROR
86-B-0467	EPIC CONTR	Y		\$369,100.00	\$192,216.00		92	ERROR
86-B-0471	R J DELMON	Y		\$355,605.00	\$155,145.00		114	ERROR
86-B-0471	ROBERT CO	Y		\$227,600.00	\$155,145.00		23	ERROR
86-B-0475	SHEFFY CON	Y		\$50,400.00	\$84,500.00		-40	ERROR
86-B-0475	H E. BEALC	Y		\$77,218.80	\$84,500.00		-9	ERROR
86-B-0478	LYBURATIONS	Y		\$125,000.00	\$60,000.00	\$103,408.00	60	24
86-B-0478	EMERALD CO	Y		\$118,800.00	\$60,000.00	\$103,408.00	49	15
86-B-0478	ROBINSON E	Y		\$131,500.00	\$60,000.00	\$103,408.00	65	27
86-B-0478	HAMMITT CO	Y		\$144,000.00	\$60,000.00	\$103,408.00	80	39
86-B-0478	KEED CONET	Y		\$113,313.00	\$60,000.00	\$103,408.00	49	15
86-B-0478	FRITZ CONS	Y		\$103,408.00	\$60,000.00	\$103,408.00	25	0
86-B-0479	BRENNAI CO	Y		\$123,400.00	\$65,723.00		83	ERROR
86-B-0481	AMITY PAVI	Y		\$65,255.00	\$33,255.00	\$49,360.00	168	81
86-B-0481	CHATTERJEE	Y		\$65,000.00	\$33,255.00	\$49,360.00	74	15
86-B-0480	CORPOLA FA	Y		\$49,360.00	\$33,255.00	\$49,360.00	48	0
86-B-0480	METRO CONT	Y		\$76,183.00	\$33,255.00	\$49,360.00	125	54
86-B-0481	COTTMAN ME	Y		\$165,100.00	\$175,000.00	\$102,484.00	8	35
86-B-0481	DEL VAL ME	Y		\$175,623.00	\$175,000.00	\$102,484.00	3	76
86-B-0481	FARINELLI	Y		\$275,973.00	\$175,000.00	\$102,484.00	58	135
86-B-0481	NORTH AMER	Y		\$246,000.00	\$175,000.00	\$102,484.00	41	140
86-B-0481	SCHAEFFER	Y		\$102,484.00	\$175,000.00	\$102,484.00	-41	0
86-B-0484	M FRANK HI	Y		\$149,143.00	\$283,300.00		-47	ERROR
86-B-0484	US FLOORS	Y		\$214,444.00	\$283,300.00		-24	ERROR
86-B-0484	CONTRACT F	Y		\$232,344.45	\$283,300.00		-18	ERROR
86-B-0484	BASEMAN ER	Y		\$133,040.00	\$283,300.00		-16	ERROR
86-B-0484	HAYLOD SE	Y		\$237,925.00	\$283,300.00		2	ERROR
86-B-0484	MARON CONS	Y		\$307,750.00	\$283,300.00		9	ERROR
86-B-0484	CRIS CONTR	Y		\$347,840.00	\$283,300.00		23	ERROR
86-B-0484	DORIC ELDB	Y		\$354,000.00	\$283,300.00		25	ERROR
86-B-0488	A P WHITAN	Y		\$150,000.00	\$181,052.00		93	ERROR
86-B-0488	OLD TOWN A	Y		\$274,975.00	\$181,052.00		52	ERROR
86-B-0493	MAGNUM INC	N		\$166,330.00	\$172,132.00	\$166,330.00	-3	0
86-B-0493	ROBERT RIP	Y		\$355,721.00	\$155,600.00	\$176,000.00	147	118
86-B-0493	R L MYLET	Y		\$155,000.00	\$155,600.00	\$176,000.00	21	7
86-B-0493	BOCKET INC	Y		\$175,000.00	\$155,600.00	\$176,000.00	13	0
86-B-0493	PANZITTA E	Y		\$155,000.00	\$155,600.00	\$176,000.00	26	11
86-B-0493	ERDURIC EY	Y		\$241,800.00	\$155,600.00	\$176,000.00	57	39
86-B-0493	S G MAITRI	Y		\$210,800.00	\$155,600.00	\$176,000.00	35	20

CONTRACT#	OFFEROR	ES	S.O.B	EID	BOV'T EST	AWARD PRICE	% OF BOV'	% OF AWA
86-B-0485	VERI ELEVA	?		\$748,219.00	\$554,000.00	\$748,219.00	35	0
86-B-0486	ART TRAMER	Y		\$35,435.00	\$51,149.00	\$35,435.00	-31	0
86-B-0486	CESSOF DEF	Y		\$24,500.00	\$51,149.00	\$35,435.00	-52	-31
86-B-0486	DAVID J RA	?		\$55,521.00	\$51,149.00	\$35,435.00	28	84
86-B-0486	ENERGY ENG	?		\$0.00	\$51,149.00	\$35,435.00	-100	-100
86-B-0486	LYNNAN CON	Y		\$35,000.00	\$51,149.00	\$35,435.00	72	145
86-B-0486	W R CASTIL	Y		\$41,800.00	\$51,149.00	\$35,435.00	-20	15
86-B-0500	BEV MEHNER	Y		\$26,757.00	\$62,000.00	\$66,450.00	-6	16
86-B-0500	GREAT AMEP	Y		\$135,711.00	\$82,000.00	\$66,450.00	66	134
86-B-0500	GROVE ROOF	Y		\$63,450.00	\$82,000.00	\$66,450.00	-19	0
86-B-0500	PEWY PERRY	Y		\$74,222.00	\$82,000.00	\$66,450.00	-9	12
86-B-0500	PIONEER CO	Y		\$31,000.00	\$82,000.00	\$66,450.00	-1	22
86-B-0505	BELL'S ROO	Y		\$206,245.00	\$245,815.00	\$206,245.00	-17	0
86-B-0505	D & S ROOF	Y		\$247,455.00	\$245,815.00	\$206,245.00	-1	20
86-B-0505	JESSIE CON	Y		\$141,575.00	\$245,815.00	\$206,245.00	-43	-34
86-B-0510	BELL'S ROO	Y		\$206,525.00	\$250,955.00	\$206,525.00	-18	0
86-B-0510	D & S ROOF	Y		\$240,825.00	\$250,955.00	\$206,525.00	-4	16
86-B-0510	ENDLESS GU	Y		\$277,000.00	\$250,955.00	\$206,525.00	10	34
86-B-0510	JESSIE CON	Y		\$141,575.00	\$250,955.00	\$206,525.00	-43	-31
86-B-0510	WEISMAN RO	Y		\$501,515.00	\$250,955.00	\$206,525.00	100	142
86-B-0511	BELL'S ROOF	Y		\$119,130.00	\$140,900.00	\$119,130.00	-15	0
86-B-0511	D & S ROOF	Y		\$147,591.00	\$140,900.00	\$119,130.00	5	34
86-B-0511	ENDLESS GU	Y		\$151,000.00	\$140,900.00	\$119,130.00	36	50
86-B-0511	JESSIE CON	Y		\$67,525.00	\$140,900.00	\$119,130.00	-38	-27
86-B-0512	BELL'S ROO	Y		\$118,370.00	\$140,900.00	\$118,370.00	-16	0
86-B-0512	D & S ROOF	Y		\$145,237.00	\$140,900.00	\$118,370.00	3	20
86-B-0512	JESSIE CON	Y		\$67,525.00	\$140,900.00	\$118,370.00	-38	-26
86-B-0512	SAS REPAIR	Y		\$578,507.00	\$224,750.00	\$444,285.00	157	30
86-B-0513	M WEISMAN	Y		\$444,285.00	\$224,750.00	\$444,285.00	98	0
86-B-0515	B STORMEER	Y		\$1,357,203.00	\$538,400.00	\$1,338,885.00	153	15
86-B-0515	SAVFIELD C	Y		\$1,338,885.00	\$538,400.00	\$1,338,885.00	149	0
86-B-0515	CERTIFIED	Y		\$1,373,000.00	\$538,400.00	\$1,338,885.00	245	40
86-B-0515	ILICE CON3	Y		\$1,514,550.00	\$538,400.00	\$1,338,885.00	237	35
86-B-0517	BERNARD I	Y		\$67,550.00	\$70,055.00		-3	ERROR
86-B-0517	ROBERT R	Y		\$33,210.00	\$70,055.00		19	ERROR
86-B-0519	DISTENSIO C	Y		\$59,000.00	\$47,500.00	\$59,000.00	23	0
86-B-0519	DELVAL ME	Y		\$59,513.00	\$47,500.00	\$59,000.00	38	12
86-B-0519	MATHIS CON	Y		\$67,525.00	\$47,500.00	\$59,000.00	41	15
86-B-0519	THOMAS B	Y		\$74,343.00	\$47,500.00	\$59,000.00	55	26
86-B-0519	H M ALLEN	Y		\$131,500.00	\$47,500.00	\$59,000.00	174	122
86-B-0535	SMITHTOWN	Y		\$110,185.00	\$112,652.00		-2	ERROR
86-B-0802	-ESTAF MNT	Y		\$251,750.00			ERROR	ERROR
86-B-0802	ALBANY JAN	?		\$177,785.00			ERROR	ERROR
86-B-0802	CONTRACT I	Y		\$234,350.00			ERROR	ERROR
86-B-0802	STEEL CIRC	Y		\$175,380.00			ERROR	ERROR
86-B-0804	ECCLIES EEC	Y	Y	\$1,355,757.35	ERROR		ERROR	ERROR
86-B-0805	BUILD MAT	Y		\$45,132.00	\$25,301.00		75	ERROR
86-B-0805	BUNSELT TE	Y		\$45,400.00	\$25,301.00		30	ERROR
86-B-0807	MID MAINE	?		\$175,000.00	\$150,457.00		55	ERROR
86-B-0807	WYMAN & SI	?		\$355,701.00	\$150,457.00		87	ERROR
86-B-0815	A & C BLOC	Y		\$1,371,515.00			ERROR	ERROR
86-B-0815	ABLE ENTER	Y		\$3,053,524.00			ERROR	ERROR

CONTRACT#	OFFEROR	SE	S O B	EIO	GOV'T EST	AWARD PRICE	%OF GOV'	% OF AWA
86-B-0815	ATLANTIC M	Y		\$2,062,562.00			ERROR	ERROR
86-B-0815	CASSIDY CL	Y		\$1,542,018.00			ERROR	ERROR
86-B-0815	CUSTODIAL	Y		\$2,123,280.00			ERROR	ERROR
86-B-0815	DTM INC	?		\$2,011,985.00			ERROR	ERROR
86-B-0815	EDCN SERVI	Y		\$2,715,127.00			ERROR	ERROR
86-B-0815	GENERAL SE	Y		\$1,650,670.00			ERROR	ERROR
86-B-0815	GOVERNMENT	Y		\$1,644,042.00			ERROR	ERROR
86-B-0815	INDUSTRIAL	Y		\$2,199,086.00			ERROR	ERROR
86-B-0815	J & L JANI	Y		\$1,883,572.00			ERROR	ERROR
86-B-0815	J & W JANI	Y		\$1,087,190.00			ERROR	ERROR
86-B-0815	OPERATIONS	?		\$2,333,450.00			ERROR	ERROR
86-B-0815	SEE CLEAR	Y		\$1,982,009.00			ERROR	ERROR
86-B-0815	SPICK AND	Y		\$2,817,787.00			ERROR	ERROR
86-B-0815	SULLIVAN J	Y		\$2,508,475.00			ERROR	ERROR
86-B-0815	THE PROFES	Y		\$1,444,646.00			ERROR	ERROR
86-B-0815	A TO Z MAI	Y	Y	\$1,834,152.00			ERROR	ERROR
86-B-0815	ALPHA MAIN	Y	Y	\$1,705,650.00			ERROR	ERROR
86-B-0815	GM & M CLE	Y	Y	\$1,535,070.00			ERROR	ERROR
86-B-0815	J & H BLOS	Y	Y	\$1,379,724.00			ERROR	ERROR
86-B-0815	KOREAN MAI	Y	Y	\$1,958,947.00			ERROR	ERROR
86-B-0815	SUCRE INC	Y	Y	\$2,458,240.00			ERROR	ERROR
86-B-0815	SWALLEY CO	Y	Y	\$1,825,088.00			ERROR	ERROR
86-B-0815	UNION JANI	Y	Y	\$1,554,155.00			ERROR	ERROR
86-B-0818	IEI SECURI	Y		\$1,483,049.10	ERROR		ERROR	ERROR
86-B-0818	APEX INVE	Y	Y	\$1,618,044.51	ERROR		ERROR	ERROR
86-B-0818	VALLEY FOR	Y	Y	\$1,381,678.35	ERROR		ERROR	ERROR
86-B-0818	WILLIAM GU	Y	Y	\$1,248,224.60	ERROR		ERROR	ERROR
86-B-0819	ECCLES SEC	Y	Y	\$107,801.00	ERROR		ERROR	ERROR
86-B-0819	JFI SECURI	Y	Y	\$104,808.00	ERROR		ERROR	ERROR
86-B-0836	ALPHA MNT	Y		\$889,424.53		\$669,749.00	ERROR	33
86-B-0836	BILL R HEA	?		\$697,577.11		\$669,749.00	ERROR	4
86-B-0836	CLEAR THRU	Y		\$713,481.23		\$669,749.00	ERROR	7
86-B-0839	HYLANE INC	Y		\$797,320.15		\$669,749.00	ERROR	19
86-B-0836	INDUSTRIAL	Y		\$1,027,567.82		\$669,749.00	ERROR	53
86-B-0836	JOHNSON &	?		\$1,062,174.18		\$669,749.00	ERROR	59
86-B-0836	L J MICHIA	Y		\$839,419.84		\$669,749.00	ERROR	24
86-B-0836	NORTHERN V	Y		\$917,652.19		\$669,749.00	ERROR	37
86-B-0836	OPERATIONS	Y		\$1,137,225.86		\$669,749.00	ERROR	70
86-B-0836	PARURKSE C	Y		\$1,221,986.68		\$669,749.00	ERROR	82
86-B-0836	R & D CUST	Y		\$722,843.66		\$669,749.00	ERROR	8
86-B-0836	SRC INC	Y		\$563,082.81		\$669,749.00	ERROR	-16
86-B-0836	MEDINA BRO	Y	y	\$659,633.42		\$669,749.00	ERROR	34
86-B-0836	MR KLEAN J	Y	y	\$907,676.48		\$669,749.00	ERROR	36
86-B-0836	SPICK & SP	Y	y	\$1,227,728.87		\$669,749.00	ERROR	83
86-B-0836	TELLENY JA	?	y	\$1,241,775.00		\$669,749.00	ERROR	85
86-B-0836	WINSTON JA	Y	y	\$1,641,777.35		\$669,749.00	ERROR	145
86-B-0840	COMMAND SE	Y		\$1,435,729.00	\$0.00	\$0.00	0	ERROR
86-B-0840	E M S I	Y		\$1,494,988.32	\$0.00	\$0.00	0	ERROR
86-B-0840	GREAT FLAI	Y		\$1,123,757.32	\$0.00	\$0.00	0	ERROR
86-B-0840	IEI SEC. S	Y		\$1,257,529.60	\$0.00	\$0.00	0	ERROR
86-B-0840	ROCKPORT I	Y		\$1,441,116.10	\$0.00	\$0.00	0	ERROR
86-B-0840	UNITED INT	Y		\$1,194,057.60	\$0.00	\$0.00	0	ERROR

CONTRACT#	OFFEROR	SP	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
86-B-0840	UNIVERSAL	Y		\$1,609,334.40	\$0.00	\$0.00	0	ERROR
86-B-0840	MASTER DET	Y		\$1,554,229.52	ERROR		ERROR	ERROR
86-B-0840	NSF SECURI	Y		\$1,584,265.60	ERROR		ERROR	ERROR
86-B-0840	Q.E. ENTER	Y		\$1,473,167.52	ERROR		ERROR	ERROR
86-B-0840	RI	Y		\$1,345,753.05	ERROR		ERROR	ERROR
86-B-0840	STOVALL'S	Y		\$1,560,116.00	ERROR		ERROR	ERROR
86-B-0840	THE SWANSD	Y		\$1,297,924.64	ERROR		ERROR	ERROR
86-B-0840	OLD DOMINI	Y	Y	\$1,472,129.76	\$0.00	\$0.00	0	ERROR
86-B-0844	J VINCHO &	Y		\$23,450.00		\$39,999.00	ERROR	-41
86-B-0844	LERTCH WRE	Y		\$39,999.00		\$39,999.00	ERROR	0
86-B-0844	MERCER WRE	Y		\$42,670.00		\$39,999.00	ERROR	7
86-B-1452	BOWLIN ENG	Y		\$192,688.00		\$96,844.00	ERROR	99
86-B-1452	HATCO INTE	?		\$230,733.00		\$96,844.00	ERROR	158
86-B-1452	HECO-PACIF	Y		\$291,340.00		\$96,844.00	ERROR	201
86-B-1452	GHIO CRANE	Y		\$274,029.00		\$96,844.00	ERROR	153
86-B-1460	DUTRA CON'S	Y		\$5,730,012.00			ERROR	ERROR
86-B-1460	SEANDECK I	Y		\$6,948,200.00			ERROR	ERROR
86-B-1460	WESTMONT I	Y		\$200,000.00			ERROR	ERROR
86-B-1469	HECO-PACIF	Y		\$322,225.00			ERROR	ERROR
86-B-1470	BAY AREA C	Y		\$132,873.00			ERROR	ERROR
86-B-1470	HECO-PACIF	Y		\$135,774.00			ERROR	ERROR
86-B-1470	POTRATI-SU	Y		\$278,000.00			ERROR	ERROR
86-B-2128	JON CONSTR	Y		\$3,319,000.00	\$2,362,553.00	\$2,697,000.00	40	23
86-B-2128	FRAUGHT CO	Y		\$3,350,000.00	\$2,362,553.00	\$2,697,000.00	42	24
86-B-2128	TLT CONST.	Y		\$2,697,000.00	\$2,362,553.00	\$2,697,000.00	14	0
86-B-3936	AMTRAC DF	Y		\$1,118,156.00	\$1,116,500.00		0	ERROR
86-B-3936	R.R CONST	Y		\$1,571,350.00	\$1,116,500.00		41	ERROR
86-B-3936	W.E YODER	Y		\$1,068,645.00	\$1,116,500.00		-4	ERROR
86-B-4432	EARTH PROP	Y		\$1,605,329.00	\$0.00	\$451,586.00	ERROR	255
86-B-4432	PHILLIPS N	Y		\$852,360.00	\$0.00	\$451,586.00	ERROR	89
86-B-4894	TRI-STATE			\$406,000.00	\$157,032.00		159	ERROR
86-B-4894	HAMPTON BE	Y		\$344,200.00	\$157,032.00		119	ERROR
86-B-4894	FLETCHER-H			\$277,594.00	\$157,032.00		77	ERROR
86-B-4894	DANLADI CO	Y		\$358,300.00	\$157,032.00		128	ERROR
86-B-4894	STAR BRITE	Y		\$222,000.00	\$157,032.00		41	ERROR
86-B-6544	A.C. SULLI	Y		\$100,000.00	\$25,715.00		289	ERROR
86-B-6544	POWER FIPI	Y		\$24,990.00	\$25,715.00		-3	ERROR
86-B-6544	POWER FIPI	Y		\$24,990.00	\$25,715.00		-3	ERROR
86-B-6544	INDEPENDEN	Y		\$17,860.00	\$25,715.00		-30	ERROR
86-B-7031	HARRELL ME	Y		\$126,631.00	\$133,600.00		-5	ERROR
86-B-7031	SERGEANT SY	Y		\$130,156.00	\$133,600.00		-3	ERROR
86-B-7031	MOORE HTG	Y		\$124,400.00	\$133,600.00		-7	ERROR
86-B-7031	ELLIS CORP	Y		\$135,115.00	\$133,600.00		1	ERROR
86-B-7031	GRANES ?	Y		\$124,124.00	\$133,600.00		-7	ERROR
86-B-7031	UNITED COM	Y		\$136,392.00	\$133,600.00		2	ERROR
86-B-7031	PEERLESS ?	Y		\$168,861.00	\$133,600.00		26	ERROR
86-B-7031	CALCULUS	Y		\$178,980.00	\$133,600.00		34	ERROR
86-B-7031	FEDERAL IM	Y		\$169,643.00	\$133,600.00		42	ERROR
86-B-7078	LINDSEYS L	Y		\$55,724.00	\$55,600.00		15	ERROR
86-B-7078	T & G CONS	Y		\$54,606.00	\$55,600.00		-2	ERROR
86-B-7092	STREIGHER	Y		\$295,000.00	\$180,000.00		64	ERROR
86-B-7092	GRAVES FLB	Y		\$251,237.00	\$180,000.00		40	ERROR

CONTRACT#	OFFEROR	SE	S D B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AUA
86-E-7222	NEIDIGH CO	Y		\$276,582.00	\$180,000.00		54	ERROR
86-E-7224	SADVA & AS			\$182,222.00	\$142,255.00		26	ERROR
86-E-7224	JUD CONST			\$185,000.00	\$142,255.00		39	ERROR
86-E-7224	PACIFIC GE	Y		\$190,000.00	\$142,255.00		34	ERROR
86-E-7224	INDY CONST	Y	Y	\$175,000.00	\$142,255.00		26	ERROR
86-E-7225	JUD CONST	Y		\$271,815.00	\$164,489.00		65	ERROR
86-E-7225	LOUIS LIND	Y		\$260,209.00	\$164,489.00		58	ERROR
86-E-7225	PACIFIC GE	Y		\$233,900.00	\$164,489.00		42	ERROR
86-E-7237	CONST DYNA	?		\$170,457.00	\$155,000.00	\$159,000.00	-8	7
86-E-7237	JUD CONST	Y		\$202,969.00	\$185,000.00	\$159,000.00	10	25
86-E-7237	RIVER-COTT	Y	Y	\$155,000.00	\$185,000.00	\$159,000.00	-14	0
86-E-7347	PARIS CONT		Y	\$595,000.00	\$364,921.00		64	ERROR
86-E-7347	BANFIELD C	Y		\$506,600.00	\$364,921.00		39	ERROR
86-E-7347	ILICE CONS	Y		\$495,383.00	\$364,921.00		36	ERROR
86-E-7347	HOWARD J.	Y		\$458,308.00	\$364,921.00		37	ERROR
86-E-7347	CITY VENTU	Y		\$458,750.00	\$364,921.00		26	ERROR
86-E-7347	NYDAN CONS	Y		\$397,813.00	\$364,921.00		9	ERROR
86-E-7347	THE SCHEPS		Y	\$462,240.00	\$364,921.00		32	ERROR
86-E-7347	ELINDERMAN	Y		\$593,011.00	\$364,921.00		63	ERROR
86-E-7746	LYTURN CON			\$67,181.00	\$70,000.00		-4	ERROR
86-E-7746	BELL STRON			\$98,976.00	\$70,000.00		-44	ERROR
86-E-7746	NORTHWEST			\$24,394.00	\$70,000.00		-65	ERROR
86-E-7746	MILL VALLE			\$24,450.00	\$70,000.00		-65	ERROR
86-E-7746	DEW INC			\$26,720.00	\$70,000.00		-62	ERROR
86-E-7746	TAYLOR MOD			\$22,195.00	\$70,000.00		-68	ERROR
86-E-7746	NORAN & AS			\$79,595.00	\$70,000.00		14	ERROR
86-E-7746	AMERICAN C			\$24,144.00	\$70,000.00		-66	ERROR
86-E-7746	SEPTAR			\$16,174.00	\$70,000.00		-77	ERROR
86-E-7746	CENTRAL IL			\$60,125.00	\$70,000.00		-14	ERROR
86-E-7758	RODNEY Y.	N		\$8,248.51			ERROR	ERROR
86-E-7758	MIGHTY TID	N		\$35,803.69			ERROR	ERROR
86-E-7761	BOSTON CLU			\$93,260.00	\$41,380.00	\$39,900.00	140	149
86-E-7761	HOFFMAN &			\$47,000.00	\$41,380.00	\$39,900.00	14	18
86-E-7761	AIS TUCKER			\$39,900.00	\$41,380.00	\$39,900.00	-4	0
86-E-7783	GRIFFITH B	?		\$993,630.00	\$253,727.00		294	ERROR
86-E-7783	MOORE TROS	?		\$349,195.00	\$253,727.00		38	ERROR
86-E-7783	RAPID CONS	?		\$483,951.00	\$253,727.00		91	ERROR
86-E-7785	BWN CONTRA	Y		\$98,992.00	\$65,527.00		36	ERROR
86-E-7787	DALTON KIL	Y		\$300,000.00	\$298,736.00		0	ERROR
86-E-7787	SMITH CONS	Y		\$246,500.00	\$298,736.00		-17	ERROR
86-E-7809	AMERICAN C	Y		\$64,894.00	\$45,019.00		44	ERROR
86-E-7809	BMS INC.	Y		\$23,610.00	\$45,019.00		-46	ERROR
86-E-7809	ENERGY SAV	Y		\$24,997.00	\$45,019.00		-44	ERROR
86-E-7809	FORD ROWE	Y		\$53,760.00	\$45,019.00		19	ERROR
86-E-7809	HARMEN LAU	?		\$20,800.00	\$45,019.00		-54	ERROR
86-E-7809	HOFFMAN &	?		\$59,980.00	\$45,019.00		33	ERROR
86-E-7809	JO CO CONS	Y		\$79,950.00	\$45,019.00		78	ERROR
86-E-7809	PHILLIP NA	Y		\$45,500.00	\$45,019.00		1	ERROR
86-E-7809	SEPT	Y		\$24,227.58	\$45,019.00		-46	ERROR
86-E-7816	RITE WAY L	Y		\$358,623.76	\$199,000.00		100	ERROR
86-E-7816	PARRS CONT	Y		\$307,358.75	\$199,000.00		54	ERROR
86-E-7816	HOWARD J.	Y		\$265,407.00	\$199,000.00		33	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
86-B-7822	STRUCTURAL			\$209,650.00	\$118,282.00	\$128,000.00	162	142
86-B-7822	PARIS CONT			\$126,000.00	\$118,282.00	\$128,000.00	8	0
86-B-7822	LAKES & RI			\$139,860.00	\$118,282.00	\$128,000.00	18	9
86-B-7822	SINGLETON			\$170,703.00	\$118,282.00	\$128,000.00	44	38
86-B-7822	GUARANTEED			\$179,485.00	\$118,282.00	\$128,000.00	52	40
86-B-7839	DJM CONTRA	Y		\$133,300.00	\$134,000.00		-1	ERROR
86-B-7839	H.V. ALLEN	Y		\$278,000.00	\$134,000.00		107	ERROR
86-B-7844	BROHNE CO	?		\$204,800.00	\$127,500.00		61	ERROR
86-B-7844	M & H CONT	?		\$180,829.00	\$127,500.00		42	ERROR
86-B-8284	JUD CONST	Y		\$369,491.00	\$379,227.00	\$369,491.00	-3	0
86-B-8303	STREICHER	Y		\$151,000.00	\$106,700.00		42	ERROR
86-B-8303	DAN TRAWIC	Y		\$234,883.00	\$106,700.00		120	ERROR
86-B-8303	BATTS CONS	Y		\$256,135.00	\$106,700.00		140	ERROR
86-B-8303	NEIDEGH CO	Y		\$165,868.00	\$106,700.00		55	ERROR
86-B-8303	LINDESEY'S	Y		\$172,127.00	\$106,700.00		67	ERROR
86-B-8413	FOSTER-WHE	N		\$747,600.00	\$1,371,253.00	\$1,049,968.00	-45	-26
86-B-8413	FRANK LILL	Y		\$1,049,968.00	\$1,371,253.00	\$1,049,968.00	-23	0
86-B-8413	HARDON POWE	Y		\$1,056,970.00	\$1,371,253.00	\$1,049,968.00	-20	4
86-B-8413	M.C.I. CON	N		\$3,431,503.00	\$1,371,253.00	\$1,049,968.00	150	227
86-B-8413	MOSTER COR	N		\$1,231,032.00	\$1,371,253.00	\$1,049,968.00	-10	17
86-B-8413	SCHNEIDER	Y		\$1,025,032.00	\$1,371,253.00	\$1,049,968.00	-25	-2
86-B-8531	NYDAN CONS	Y		\$67,173.00	\$109,000.00		-20	ERROR
86-B-8531	ELECTRIC E	Y		\$58,722.00	\$109,000.00		-46	ERROR
86-B-8531	UTILITY DY	Y		\$114,127.00	\$109,000.00		5	ERROR
86-B-8531	AIDCASS EL	Y		\$109,891.00	\$109,000.00		1	ERROR
86-B-8531	JEFFREY T	Y		\$41,000.00	\$109,000.00		-62	ERROR
86-B-8531	DANA ENVIR	Y		\$87,655.00	\$109,000.00		-20	ERROR
86-B-8531	HOLROYD CO	Y		\$87,579.00	\$109,000.00		-20	ERROR
86-B-8559	BAYFIELD C	Y		\$66,773.00	\$67,138.95		-1	ERROR
86-B-8559	CAM ELEC	Y		\$5,712.00	\$67,138.95		-91	ERROR
86-B-8559	EXCELLENT	Y		\$61,600.00	\$67,138.95		-8	ERROR
86-B-8559	HOPPHAN &	Y		\$88,597.00	\$67,138.95		32	ERROR
86-B-8559	ILPCE CONS	Y		\$69,600.00	\$67,138.95		4	ERROR
86-B-8559	NYDAN CONS	Y		\$72,018.00	\$67,138.95		7	ERROR
86-B-8559	OSCAR J.BE	Y		\$68,000.00	\$67,138.95		1	ERROR
86-B-8559	PELONPA CO	Y		\$78,445.00	\$67,138.95		17	ERROR
86-B-8559	RITE-WAY	Y		\$84,770.00	\$67,138.95		26	ERROR
86-B-8559	SOMERS CO	Y	Y	\$69,449.00	\$67,138.95		3	ERROR
86-C-4910	RIPPER INC	Y		\$237,721.00	\$115,188.00		106	ERROR
86-C-4910	POLARIS CO	Y		\$145,200.00	\$115,188.00		26	ERROR
86-C-4910	SAWYER CO	Y		\$227,800.00	\$115,188.00		98	ERROR
86-C-6544	UNITED MEC	Y		\$14,890.00	\$25,715.00		-42	ERROR
86-C-7764	WM SCHAUS	?		\$31,571.00	\$48,508.00		-35	ERROR
87- -4646	JACK COHEN	Y		\$53,870.00	\$76,053.00		-29	ERROR
87-4705	WALTER STR	Y		\$369,276.00	\$320,000.00		15	ERROR
87-4705	MAGNUM INC	Y		\$387,000.00	\$320,000.00		21	ERROR
87-4705	RANCO CONS	Y		\$337,000.00	\$320,000.00		5	ERROR
87-4705	INTL CONST	Y		\$334,345.00	\$320,000.00		4	ERROR
87-4705	DANLADI CO		Y	\$383,000.00	\$320,000.00		20	ERROR
87-4705	PNM CONST	Y		\$286,500.00	\$320,000.00		-10	ERROR
87-4705	MILLER BRD	Y		\$291,090.00	\$320,000.00		-9	ERROR
87-4705	MIBO CONST	Y		\$297,345.20	\$320,000.00		-7	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	ETD	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-4795	FARINELLI	Y		\$98,693.75	\$24,179.78		267	ERROR
87-4795	PNM CONST	?		\$24,200.00	\$24,179.78		0	ERROR
87-4795	HAMPTON CD	Y		\$48,700.00	\$24,179.78		101	ERROR
87-4795	RANCO CONS	Y		\$32,530.00	\$24,179.78		35	ERROR
87-4795	INTL CONST	Y		\$17,500.00	\$24,179.78		-28	ERROR
87-B-0004	R-E CONSTR	Y		\$53,264.34	\$113,510.00		-53	ERROR
87-B-0004	R-C CONSTR	Y		\$53,264.34	\$113,510.00		-53	ERROR
87-B-0010	A F LUSI C	Y		\$2,044,714.00	\$1,094,000.00		87	ERROR
87-B-0010	BRAPHY & P	Y		\$2,698,813.00	\$1,094,000.00		146	ERROR
87-B-0010	MARON CONS	Y		\$1,743,209.00	\$1,094,000.00		59	ERROR
87-B-0012	B WRUMBER	N		\$10,067,255.00	\$9,100,000.00	\$9,579,425.00	11	5
87-B-0012	BLINDERMAN	N		\$9,579,425.00	\$9,100,000.00	\$9,579,425.00	5	0
87-B-0012	BLUIDIUS C	N		\$12,337,000.00	\$9,100,000.00	\$9,579,425.00	36	29
87-B-0012	DEXKINS &	N		\$9,593,000.00	\$9,100,000.00	\$9,579,425.00	5	0
87-B-0012	POWERS & S	N	Y	\$10,222,000.00	\$9,100,000.00	\$9,579,425.00	12	7
87-B-0016	DONATO SFA	Y		\$423,490.00	\$227,000.00	\$264,648.00	87	60
87-B-0016	ERICO ROMA	Y		\$346,643.00	\$227,000.00	\$264,648.00	53	31
87-B-0016	HAMPTON EE	Y		\$362,000.00	\$227,000.00	\$264,648.00	59	37
87-B-0016	MAGNUM, IN	Y		\$392,735.00	\$227,000.00	\$264,648.00	73	48
87-B-0016	PNM CONSTR	Y		\$264,648.00	\$227,000.00	\$264,648.00	17	0
87-B-0016	RAY ANGELI	Y		\$308,000.00	\$227,000.00	\$264,648.00	36	16
87-B-0016	SAMBE CONS	Y		\$384,300.00	\$227,000.00	\$264,648.00	69	45
87-B-0016	ROSS-ARACD	Y	Y	\$516,670.00	\$227,000.00	\$264,648.00	128	95
87-B-0019	BRENIER CD	Y		\$1,057,267.00	\$931,000.00	\$889,216.00	14	13
87-B-0019	GAFFNEY CD	Y		\$1,089,000.00	\$931,000.00	\$889,216.00	17	22
87-B-0019	GAFFNEY CD	Y		\$1,089,000.00	\$931,000.00	\$889,216.00	17	22
87-B-0019	BRENIER CD	Y		\$1,057,267.00	\$931,000.00	\$889,216.00	14	19
87-B-0019	H V ALLAN	Y		\$1,089,000.00	\$931,000.00	\$889,216.00	17	22
87-B-0019	H V ALLAN	Y		\$1,089,000.00	\$931,000.00	\$889,216.00	17	22
87-B-0019	JON CONST	Y		\$1,365,000.00	\$931,000.00	\$889,216.00	47	54
87-B-0019	JON CONSTR	Y		\$1,365,000.00	\$931,000.00	\$889,216.00	47	54
87-B-0019	MERRIMOCK	Y		\$892,900.00	\$931,000.00	\$889,216.00	-4	0
87-B-0019	MERRIMOCK	Y		\$892,900.00	\$931,000.00	\$889,216.00	-4	0
87-B-0019	MIDDLESEX	Y		\$864,000.00	\$931,000.00	\$889,216.00	4	8
87-B-0019	MIDDLESEX	Y		\$864,000.00	\$931,000.00	\$889,216.00	4	8
87-B-0019	MIDDLESEX			\$864,000.00	\$931,000.00	\$889,216.00	4	8
87-B-0019	OVER & UND	Y		\$889,216.00	\$931,000.00	\$889,216.00	-4	0
87-B-0019	SWEPCO COR	Y		\$1,211,000.00	\$931,000.00	\$889,216.00	30	36
87-B-0019	SWEPCO COR	Y		\$1,211,000.00	\$931,000.00	\$889,216.00	30	36
87-B-0023	CANASTOTA	Y		\$290,800.00	\$269,548.00	\$247,200.00	8	18
87-B-0023	D H SMITH	Y		\$351,991.87	\$269,548.00	\$247,200.00	31	42
87-B-0023	HANNA CONS	Y		\$368,000.00	\$269,548.00	\$247,200.00	37	49
87-B-0023	HANNA CONS	Y		\$368,000.00	\$269,548.00	\$247,200.00	37	49
87-B-0023	J & J KING	Y		\$247,200.00	\$269,548.00	\$247,200.00	-8	0
87-B-0023	JOHN FURA	Y		\$268,990.00	\$269,548.00	\$247,200.00	-0	9
87-B-0023	LANZ CONST	Y		\$368,000.00	\$269,548.00	\$247,200.00	37	45
87-B-0023	LANZ CONST	Y		\$368,000.00	\$269,548.00	\$247,200.00	37	49
87-B-0023	SCUTO BLAC	Y		\$357,652.00	\$269,548.00	\$247,200.00	48	61
87-B-0023	SCUTO BLAC	Y		\$357,652.00	\$269,548.00	\$247,200.00	48	61
87-B-0023	RICHARD LY	Y		\$333,000.00	\$269,548.00	\$247,200.00	24	35
87-B-0023	CANASTOTA	Y	?	\$250,800.00	\$269,548.00	\$247,200.00	8	18
87-B-0023	D,H SMITH	Y	?	\$351,991.87	\$269,548.00	\$247,200.00	31	42

CONTRACT#	OFFEROR	SE	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-0023	J&J KING D	Y	?	\$247,200.00	\$269,548.00	\$247,200.00	-8	0
87-B-0023	JOHN FURA	Y	?	\$268,990.00	\$269,548.00	\$247,200.00	-0	9
87-B-0023	RICHARD LY	Y	?	\$330,000.00	\$269,548.00	\$247,200.00	22	33
87-B-0026	KIRK ERDE	Y		\$1,448,500.00	\$1,042,000.00	\$1,094,000.00	39	32
87-B-0026	MAGNUM INC	Y		\$1,227,770.00	\$1,042,000.00	\$1,094,000.00	18	12
87-B-0026	SAMEE CONS	Y		\$1,094,000.00	\$1,042,000.00	\$1,094,000.00	5	0
87-B-0036	BALCAR CON	Y		\$477,600.00	\$180,546.00	\$180,000.00	165	165
87-B-0036	EERNMIL CO	Y		\$279,000.00	\$180,546.00	\$180,000.00	55	55
87-B-0036	CHATTERJEE	Y		\$225,000.00	\$180,546.00	\$180,000.00	25	25
87-B-0036	KORNAS CON	Y		\$192,710.00	\$180,546.00	\$180,000.00	7	7
87-B-0036	MANSHUL CO	Y		\$590,000.00	\$180,546.00	\$180,000.00	227	228
87-B-0036	P F LOMMA	Y		\$1,252,500.00	\$180,546.00	\$180,000.00	594	596
87-B-0036	ROME GENER	Y		\$226,000.00	\$180,546.00	\$180,000.00	25	25
87-B-0043	CACTMAN ME	Y		\$370,200.00	\$198,241.00	\$207,797.00	87	78
87-B-0043	WESCOTT EL	Y		\$884,493.00	\$198,241.00	\$207,797.00	351	330
87-B-0043	ALFRED J.	Y		\$207,797.00	\$198,241.00	\$207,797.00	5	0
87-B-0043	BORO DEVEL	Y		\$369,950.00	\$198,241.00	\$207,797.00	87	78
87-B-0043	M & M ELEC	Y		\$497,136.00	\$198,241.00	\$207,797.00	151	139
87-B-0043	DEL VAL ME	Y		\$798,868.00	\$198,241.00	\$207,797.00	303	284
87-B-0043	SAGE COM I	Y		\$408,203.00	\$198,241.00	\$207,797.00	106	96
87-B-0043	TEABOARD E	Y		\$606,342.00	\$198,241.00	\$207,797.00	206	192
87-B-0043	MUCERO ELE	Y		\$345,000.00	\$198,241.00	\$207,797.00	74	66
87-B-0043	SHELBY'S D	Y		\$500,000.00	\$198,241.00	\$207,797.00	152	141
87-B-0043	DELTA LINE	Y		\$625,000.00	\$198,241.00	\$207,797.00	215	201
87-B-0043	CARR & DUF	Y		\$421,955.00	\$198,241.00	\$207,797.00	113	103
87-B-0043	DNEHORE CO	Y		\$473,500.00	\$198,241.00	\$207,797.00	139	128
87-B-0043	THE LACK G	Y		\$414,000.00	\$198,241.00	\$207,797.00	109	99
87-B-0103	CRIS CONTR	Y		\$355,000.00	\$399,666.00		-11	ERROR
87-B-0111	M.V. WOODS	Y		\$59,938.00	\$34,661.00		73	ERROR
87-B-0111	J B. STAUF	Y		\$34,330.00	\$34,661.00		-1	ERROR
87-B-0111	ARCHER JON	Y		\$24,535.00	\$34,661.00		-29	ERROR
87-B-0111	LAW BROS C	Y		\$65,454.00	\$34,661.00		89	ERROR
87-B-0111	R.J. ORTLI	Y		\$52,500.00	\$34,661.00		167	ERROR
87-B-0111	A.R. MACK	Y		\$54,600.00	\$34,661.00		58	ERROR
87-B-0308	BEIDLER TA	Y		\$247,247.00	\$230,000.00	\$247,247.00	7	0
87-B-0308	WEATHER MA	Y		\$245,200.00	\$230,000.00	\$247,247.00	7	-1
87-B-0401	JOHN MALLO	Y		\$68,000.00	\$70,000.00		-3	ERROR
87-B-0401	R.J. DELMO	Y		\$74,415.00	\$70,000.00		6	ERROR
87-B-0401	PAUL J. RO	Y		\$69,411.00	\$70,000.00		-1	ERROR
87-B-0401	EUGENE RIC	?		\$94,490.00	\$70,000.00		35	ERROR
87-B-0404	MAGNUM INC	Y		\$877,643.00	\$476,036.00	\$877,643.00	84	0
87-B-0404	DANLADI CO	Y	y	\$864,000.00	\$476,036.00	\$877,643.00	81	-2
87-B-0408	A & M CONS	Y		\$87,900.00	\$87,900.00	\$87,900.00	0	0
87-B-0408	A.P. ELETR	Y		\$126,059.00	\$87,900.00	\$87,900.00	43	43
87-B-0408	GUARDELLI B	Y		\$121,000.00	\$87,900.00	\$87,900.00	38	38
87-B-0408	HAMPTON BE	Y		\$145,500.00	\$87,900.00	\$87,900.00	66	66
87-B-0408	PIONEER CO	Y		\$94,000.00	\$87,900.00	\$87,900.00	7	7
87-B-0408	UNITED CON	Y		\$118,000.00	\$87,900.00	\$87,900.00	34	34
87-B-0409	MAGNUM INC	Y		\$174,000.00	\$220,000.00	\$87,900.00	-21	98
87-B-0409	GAFFNY COR	Y		\$494,200.00	\$288,384.00		71	ERROR
87-B-0409	HESCO- ENV	?		\$797,000.00	\$288,384.00		176	ERROR
87-B-0409	LOCKWELL I	Y		\$450,000.00	\$288,384.00		56	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-0409	LYBURN CON	Y		\$393,800.00	\$288,384.00		37	ERROR
87-B-0409	WM BIRCH C	Y		\$345,598.00	\$288,384.00		21	ERROR
87-B-0411	A P WHITAK	Y		\$194,000.00	\$186,957.00	\$186,957.00	4	4
87-B-0411	BRADSTREET	Y		\$298,000.00	\$186,957.00	\$186,957.00	59	59
87-E-0411	CONSOLIDAT	Y		\$207,999.00	\$186,957.00	\$186,957.00	11	11
87-B-0411	E L SHEA I	Y		\$186,957.00	\$186,957.00	\$186,957.00	0	0
87-B-0411	MID MAINE	Y		\$228,600.00	\$186,957.00	\$186,957.00	22	22
87-B-0431	ROCKWELL I	Y		\$379,000.00	\$244,331.00	\$379,000.00	55	0
87-B-0432	BARBATO CO	Y		\$138,437.00	\$101,580.00	\$132,700.00	36	4
87-B-0432	KELCO BLDG	Y		\$132,700.00	\$101,580.00	\$132,700.00	31	0
87-B-0441	HUTCHINSON	Y		\$948,989.00	\$2,304,445.00	\$948,989.00	-59	0
87-B-0441	NORTH AMER	Y		\$1,279,000.00	\$2,304,445.00	\$948,989.00	-44	35
87-B-0441	UNITED CRE	Y		\$1,258,258.00	\$2,304,445.00	\$948,989.00	-45	33
87-B-0442	C. PYRAMID	Y		\$1,150,000.00	\$795,749.00		45	ERROR
87-B-0442	G.P. PALAM	Y		\$1,129,283.00	\$795,749.00		42	ERROR
87-B-0442	GAUDELLI B	Y		\$858,000.00	\$795,749.00		8	ERROR
87-B-0442	GUINTA CON	Y		\$955,000.00	\$795,749.00		20	ERROR
87-B-0442	LOTT GROUP	Y		\$1,111,000.00	\$795,749.00		40	ERROR
87-B-0442	MAGNUM INC	Y		\$1,093,799.00	\$795,749.00		37	ERROR
87-B-0442	DANLADI CO	Y	Y	\$1,230,000.00	\$795,749.00		55	ERROR
87-B-0458	MOSD CONST	Y		\$1,815,776.00	\$1,151,000.00		58	ERROR
87-B-0458	CIRCLE-A C	Y		\$1,668,411.95	\$1,151,000.00		45	ERROR
87-B-0458	D.S. CONTR	Y		\$871,611.94	\$1,151,000.00		-24	ERROR
87-B-0458	CENTRAL AT	Y		\$759,937.49	\$1,151,000.00		-34	ERROR
87-B-0458	TOWASCO CO	Y		\$673,763.00	\$1,151,000.00		-41	ERROR
87-B-0458	COSTELLO I	Y		\$633,274.38	\$1,151,000.00		-45	ERROR
87-B-0458	FRASSETTO	Y		\$995,553.93	\$1,151,000.00		-14	ERROR
87-B-0458	J.H. REID	Y		\$1,858,182.00	\$1,151,000.00		61	ERROR
87-B-0468	MOS TO CON	Y		\$866,673.10	\$1,151,000.00		-16	ERROR
87-B-0468	CIRCLE A C	Y		\$1,815,776.00	\$1,151,000.00		58	ERROR
87-B-0468	J.H. REID	Y		\$1,858,182.00	\$1,151,000.00		61	ERROR
87-B-0468	A H 2 CONT	Y		\$871,611.94	\$1,151,000.00		-24	ERROR
87-B-0468	CENTRAL AT	Y		\$759,937.49	\$1,151,000.00		-34	ERROR
87-B-0468	TOWASCO	Y		\$673,763.00	\$1,151,000.00		-41	ERROR
87-B-0468	COSTELLO I	Y		\$633,274.38	\$1,151,000.00		-45	ERROR
87-B-0468	FRASSETTO	Y		\$995,553.98	\$1,151,000.00		-14	ERROR
87-B-0472	GEM BUILDE	Y		\$91,640.00	\$91,400.00	\$66,850.00	-11	22
87-B-0472	MARON CONS	Y		\$66,850.00	\$91,400.00	\$66,850.00	-27	0
87-B-0472	Q R KURBIC	Y		\$101,680.00	\$91,400.00	\$66,850.00	11	52
87-B-0472	R P IANNUC	Y		\$97,600.00	\$91,400.00	\$66,850.00	7	46
87-B-0475	GAFFNEY CO	Y		\$519,000.00	\$288,384.00	\$383,500.00	80	35
87-B-0475	P & D CONT	Y		\$383,500.00	\$288,384.00	\$383,500.00	33	0
87-B-0475	ROCKWELL I	Y		\$458,000.00	\$288,384.00	\$383,500.00	59	19
87-B-0475	WILLIAM BI	Y		\$389,547.00	\$288,384.00	\$383,500.00	35	2
87-B-0800	-NCO CONST	Y		\$427,000.00		\$477,000.00	ERROR	-10
87-B-0800	J.R. SEAMA	Y		\$279,000.00		\$477,000.00	ERROR	-42
87-B-0800	RCI CONTRA	Y		\$477,000.00		\$477,000.00	ERROR	0
87-B-0810	DOONCO CON	Y		\$498,719.00	\$0.00		0	ERROR
87-B-0810	FRAUGHT CO	Y		\$530,000.00	\$0.00		ERROR	ERROR
87-B-0810	REAGAN CON	Y		\$247,000.00	\$0.00		ERROR	ERROR
87-B-0810	Greenco Con	Y		\$498,789.00	\$269,548.00		85	ERROR
87-B-0810	Reagan Con	Y		\$247,000.00	\$269,548.00		-8	ERROR

CONTRACT#	OFFEROR	SE	S.D.B	EID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-0810	PRAUGHT CD	Y		\$530,000.00	ERROR	ERROR	ERROR	ERROR
87-B-0810	AETNA BRID	Y	Y	\$941,350.00	\$0.00		ERROR	ERROR
87-B-0810	NEW ENGLAN	Y	Y	\$632,009.00	\$0.00		ERROR	ERROR
87-B-0810	Aetna Brid	Y	Y	\$941,350.00	ERROR	ERROR	ERROR	ERROR
87-B-0810	New Englan	Y	Y	\$632,009.00	ERROR	ERROR	ERROR	ERROR
87-B-0900	PRAUGHT CD	Y		\$480,000.00			ERROR	ERROR
87-B-1454	DEVAULT SE	Y		\$91,862.00			ERROR	ERROR
87-B-1454	PARK WELDI	Y		\$26,741.00			ERROR	ERROR
87-B-2513	PC & J CON	Y		\$1,237,070.00	\$906,000.00	\$921,843.00	37	34
87-B-2513	R J SANDER	Y		\$921,843.00	\$906,000.00	\$921,843.00	2	0
87-B-2513	SULLIVAN M	Y		\$1,107,168.00	\$906,000.00	\$921,843.00	22	20
87-B-2513	SWERCO COR	Y		\$1,127,000.00	\$906,000.00	\$921,843.00	24	22
87-B-2513	THE GIBSON	Y		\$1,165,000.00	\$906,000.00	\$921,843.00	29	26
87-B-2581	O	O		\$0.00	\$0.00		ERROR	ERROR
87-B-2589	CENTRAL AT	Y		\$854,850.00	\$1,009,690.00	\$753,422.00	-15	13
87-B-2589	COSTELLA I	Y		\$759,525.00	\$1,009,690.00	\$753,422.00	-25	1
87-B-2589	DAVIS & HA	Y		\$1,067,786.00	\$1,009,690.00	\$753,422.00	6	42
87-B-2589	FINE CONTR	Y		\$753,422.00	\$1,009,690.00	\$753,422.00	-25	0
87-B-2589	THE BRIDGE	Y		\$1,395,140.00	\$1,009,690.00	\$753,422.00	38	85
87-B-2589	TOWASCO CO	Y		\$1,162,420.00	\$1,009,690.00	\$753,422.00	15	54
87-B-2606	REED & REE	Y		\$4,041,000.00	\$3,194,570.00	\$4,041,000.00	26	0
87-B-4706	DEL VAL ME	Y		\$105,988.00	\$93,961.00		13	ERROR
87-B-4706	F M NORTH	Y		\$80,505.00	\$93,961.00		-14	ERROR
87-B-4706	FRITURA IN	Y		\$95,720.00	\$93,961.00		2	ERROR
87-B-4706	JACK GILL	Y		\$106,210.00	\$93,961.00		13	ERROR
87-B-4706	JAMES J GA	?		\$73,490.00	\$93,961.00		-22	ERROR
87-B-4706	LANE & CLA	Y		\$79,697.00	\$93,961.00		-15	ERROR
87-B-4706	MECHANICAL	Y		\$80,700.00	\$93,961.00		-14	ERROR
87-B-4706	POWERHOUSE	Y		\$76,495.00	\$93,961.00		-19	ERROR
87-B-4706	SDHAN MECH	Y		\$84,625.00	\$93,961.00		-10	ERROR
87-B-4706	SYNDER CO	Y		\$94,050.00	\$93,961.00		0	ERROR
87-B-4712	JACK COHEN	Y		\$33,250.00	\$23,290.00		43	ERROR
87-B-4712	M C SEAN E	Y		\$57,000.00	\$23,290.00		145	ERROR
87-B-4712	HAMPTON BE	Y		\$77,700.00	\$75,900.00		2	ERROR
87-B-4712	KIRK BROTH	Y		\$68,200.00	\$75,900.00		-10	ERROR
87-B-4724	NOVAK & AS	?		\$24,826.00	\$23,290.00		7	ERROR
87-B-4724	SPECTRUM C	Y		\$24,224.00	\$23,290.00		4	ERROR
87-B-4728	?????? A	?		\$59,885.00	\$50,020.00		20	ERROR
87-B-4728	DAVID R EL	Y		\$46,458.00	\$50,020.00		-7	ERROR
87-B-4728	JAMES J GA	Y		\$27,485.00	\$50,020.00		-45	ERROR
87-B-4728	JOHN J BEE	Y		\$39,492.00	\$50,020.00		-21	ERROR
87-B-4728	MECHANICAL	Y		\$42,390.00	\$50,020.00		-15	ERROR
87-B-4728	PETERSON S	Y		\$46,300.00	\$50,020.00		-7	ERROR
87-B-4728	DEL VAL ME	Y		\$244,986.00	\$166,100.00		47	ERROR
87-B-4743	COLLINSON	Y		\$197,471.00	\$150,300.00		31	ERROR
87-B-4743	HAMPTON CD	Y		\$242,000.00	\$150,300.00		61	ERROR
87-B-4743	RANCO CO	Y		\$225,440.00	\$150,300.00		50	ERROR
87-B-4743	RICHARD PU	Y		\$144,520.00	\$150,300.00		-4	ERROR
87-B-4764	DPC GENERA	Y		\$79,900.00	\$61,300.00		30	ERROR
87-B-4764	DVALL MAIN	Y		\$79,754.00	\$61,300.00		30	ERROR
87-B-4764	FALCON ASS	Y		\$52,000.00	\$61,300.00		-15	ERROR
87-B-4764	FORD GENER	Y		\$24,332.00	\$61,300.00		-60	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-4764	BOO & ASSO	Y		\$21,345.00	\$61,300.00		-65	ERROR
87-B-4764	HAZARDOUS	Y		\$60,000.00	\$61,300.00		-2	ERROR
87-B-4764	NAACO	Y		\$79,000.00	\$61,300.00		29	ERROR
87-B-4764	PROJECT DE	Y		\$46,300.00	\$61,300.00		-24	ERROR
87-B-4764	SEAGULL EN	Y		\$96,475.00	\$61,300.00		57	ERROR
87-B-4764	WILLIAM C.	?		\$51,400.00	\$61,300.00		-16	ERROR
87-B-4788	BAY WELDIN	Y		\$340,000.00	\$166,100.00		105	ERROR
87-B-4788	COTTMAN ME	Y		\$249,100.00	\$166,100.00		50	ERROR
87-B-4788	MAGNUM INC	Y		\$387,975.00	\$166,100.00		134	ERROR
87-B-4788	WILKO CORP	Y		\$500,000.00	\$166,100.00		201	ERROR
87-B-4796	ASBESTOS R	?		\$95,141.95	\$81,000.00		17	ERROR
87-B-4796	ASBESTOS R	Y		\$69,545.00	\$118,700.00		-41	ERROR
87-B-4796	CONSTRUCTI	?		\$78,250.00	\$118,700.00		-34	ERROR
87-B-4796	DORE & ASS	Y		\$214,400.00	\$118,700.00		81	ERROR
87-B-4796	DUAL INC.	Y		\$170,646.00	\$118,700.00		44	ERROR
87-B-4796	FALCON ASS	Y		\$80,350.00	\$118,700.00		-32	ERROR
87-B-4796	HAZARDOUS	Y		\$180,000.00	\$118,700.00		52	ERROR
87-B-4796	NAACO	Y		\$200,295.00	\$118,700.00		69	ERROR
87-B-4796	PROJECT DE	Y		\$88,700.00	\$118,700.00		-25	ERROR
87-B-4796	SEAGULL EN	Y		\$98,472.00	\$118,700.00		-17	ERROR
87-B-4797	DPC GENERA	Y		\$109,988.00	\$81,000.00		36	ERROR
87-B-4797	DUAL INC.	Y		\$70,050.00	\$81,000.00		-14	ERROR
87-B-4797	FALCON ASS	Y		\$66,400.00	\$81,000.00		-18	ERROR
87-B-4797	HAZARDOUS	Y		\$150,000.00	\$81,000.00		85	ERROR
87-B-4797	PROJECT DE	Y		\$87,000.00	\$81,000.00		7	ERROR
87-B-4799	HAMPTON EE	Y		\$255,900.00	\$179,832.00		31	ERROR
87-B-4799	MAGNUM INC	Y		\$207,224.00	\$179,832.00		15	ERROR
87-B-4799	MISC CONST	Y		\$185,243.00	\$179,832.00		3	ERROR
87-B-4799	PARKS & EI	Y		\$224,511.00	\$179,832.00		25	ERROR
87-B-4799	RANCO CONS	Y		\$192,100.00	\$179,832.00		7	ERROR
87-B-4799	ROBERT G R	Y		\$279,215.00	\$179,832.00		55	ERROR
87-B-5000	EDGELEY AIR	?		\$93,081.00	\$58,000.00		60	ERROR
87-B-5000	EDGELEY AIR	?		\$93,081.00	\$58,000.00		60	ERROR
87-B-5325	O'STEENS C	Y		\$14,999.00	\$22,114.00		-32	ERROR
87-B-5325	RANCO CONS	Y		\$21,820.00	\$22,114.00		-1	ERROR
87-B-5325	EASTERN AT	Y		\$24,923.00	\$22,114.00		12	ERROR
87-B-5325	HAMPTON BC	Y		\$23,700.00	\$22,114.00		7	ERROR
87-B-5325	GAUDELL BR	Y		\$21,800.00	\$22,114.00		-1	ERROR
87-B-5350	G.T. PAINT	Y		\$249,000.00	\$183,000.00	\$89,150.00	36	179
87-B-5350	JLT PAINTI	Y		\$117,000.00	\$183,000.00	\$89,150.00	-36	31
87-B-5350	HYGRADE PA	Y		\$103,697.00	\$183,000.00	\$89,150.00	-43	16
87-B-5350	A&G PAINTI	Y		\$89,150.00	\$183,000.00	\$89,150.00	-51	0
87-B-5350	PRO-SPEC P	Y		\$202,913.00	\$183,000.00	\$89,150.00	11	128
87-B-5350	GAA GENERA	Y		\$195,000.00	\$183,000.00	\$89,150.00	7	119
87-B-5350	STARSITE	Y		\$144,000.00	\$183,000.00	\$89,150.00	-21	62
87-B-5350	ATHAN CONT	Y		\$133,000.00	\$183,000.00	\$89,150.00	-24	56
87-B-5350	CONSTANTIN	Y		\$185,887.00	\$183,000.00	\$89,150.00	4	113
87-B-5350	PNM CONSTR	Y		\$178,227.00	\$183,000.00	\$89,150.00	-3	100
87-B-5350	OLYVIA PAI	Y		\$163,000.00	\$183,000.00	\$89,150.00	-11	83
87-B-5350	CAESAR CON	Y		\$112,000.00	\$183,000.00	\$89,150.00	-39	26
87-B-5641	ACE SERVIC	N		\$825,752.00			ERROR	ERROR
87-B-5641	ACTION MAI	Y		\$915,000.00			ERROR	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-5641	ALPHA MAT	Y		\$975,732.00			ERROR	ERROR
87-B-5641	ATLANTIC M	Y		\$1,352,795.00			ERROR	ERROR
87-B-5641	C PROFESSI	Y		\$1,320,887.06			ERROR	ERROR
87-B-5641	DUTCH EDYS	Y		\$922,507.00			ERROR	ERROR
87-B-5641	E & M CLEA	Y		\$1,071,531.00			ERROR	ERROR
87-B-5641	GOLDEN BEE	Y		\$584,088.00			ERROR	ERROR
87-B-5641	GOVT OPERA	Y		\$1,151,055.00			ERROR	ERROR
87-B-5641	MELSON MAT	Y		\$718,306.22			ERROR	ERROR
87-B-5641	STATEWIDE	Y		\$97,803.00			ERROR	ERROR
87-B-5641	SVC CONTRD	Y		\$909,404.00			ERROR	ERROR
87-B-5641	THE ALDEN	?		\$575,666.00			ERROR	ERROR
87-B-5641	CYCLE BLDG	Y	Y	\$720,323.00			ERROR	ERROR
87-B-5644	J J ANDERS	Y		\$107,060.00	\$119,000.00	\$107,060.00	-10	0
87-B-5644	JAS FFOLIN	Y		\$149,000.00	\$119,000.00	\$107,060.00	25	39
87-B-5644	JOHN J DOU	Y		\$175,000.00	\$119,000.00	\$107,060.00	47	63
87-B-5644	PALAPIS CO	Y		\$111,600.00	\$119,000.00	\$107,060.00	-6	4
87-B-5935	LAEDR INC	Y		\$900,400.00	\$826,000.00		9	ERROR
87-B-5935	LOSAR INC	Y		\$900,400.00	\$826,000.00		9	ERROR
87-B-5956	SHONES ADV	Y		\$2,431.00	\$2,170.00		12	ERROR
87-B-5957	SHONES ADV	Y		\$2,431.00	\$2,170.00		12	ERROR
87-B-5957	MILLER-FIC	Y		\$2,480.00	\$2,170.00		14	ERROR
87-B-5958	EMMORTON E	Y		\$9,964.50	\$8,670.00		15	ERROR
87-B-5958	POWER SYST	Y		\$13,670.00	\$8,670.00		58	ERROR
87-B-5958	POWER TECH	Y		\$5,490.00	\$8,670.00		-37	ERROR
87-B-5958	MET ELECTR	Y		\$11,735.00	\$8,670.00		35	ERROR
87-B-5958	MICROBAC I	Y		\$16,170.00	\$8,670.00		87	ERROR
87-B-7011	NEIDIGH CO	Y		\$115,931.00	\$93,950.00		23	ERROR
87-B-7011	TREILD BLD	Y		\$69,699.00	\$93,950.00		-25	ERROR
87-B-7058	LINDSEY LU	Y		\$263,881.00	\$267,000.00	\$235,168.00	-1	12
87-B-7058	GAVES GEN	Y		\$263,000.00	\$267,000.00	\$235,168.00	-5	8
87-B-7058	NEIDIGH CO	Y		\$254,957.00	\$267,000.00	\$235,168.00	-5	8
87-B-7058	T&G CONST	Y		\$235,168.00	\$267,000.00	\$235,168.00	-12	0
87-B-7072	LYNN CONST	Y		\$123,315.00	\$94,780.00		30	ERROR
87-B-7072	NEIDIGH CON	Y		\$106,451.00	\$94,780.00		12	ERROR
87-B-7084	LINDSEY LU	Y		\$128,208.00	\$93,950.00		37	ERROR
87-B-7084	NEIDIGH CO	Y		\$136,950.00	\$93,950.00		46	ERROR
87-B-7085	GRAVES FLB	Y		\$86,868.00	\$86,700.00		0	ERROR
87-B-7085	LINDSEYS I	Y		\$77,124.00	\$86,700.00		-11	ERROR
87-B-7085	STREICHER	Y		\$84,113.00	\$86,700.00		-3	ERROR
87-B-7085	PEERLESS P	Y		\$191,567.00	\$86,700.00		121	ERROR
87-B-7085	NEIDIGH CO	Y		\$78,449.00	\$86,700.00		-10	ERROR
87-B-7115	C & S CONS	Y		\$116,110.00	\$30,040.00	\$32,798.00	287	254
87-B-7115	TEL-VI CGM	Y		\$35,474.00	\$30,040.00	\$32,798.00	18	8
87-B-7115	MOORE & AR	Y		\$32,789.00	\$30,040.00	\$32,798.00	9	-0
87-B-7115	KAS CABLE	Y		\$49,068.00	\$30,040.00	\$32,798.00	63	50
87-B-7115	JON POWELL	Y		\$17,766.00	\$30,040.00	\$32,798.00	-41	-46
87-B-7151	NEIDIGH CO	Y		\$97,550.00	\$72,000.00	\$67,698.00	35	44
87-B-7151	LYND CONST	Y		\$88,416.00	\$72,000.00	\$67,698.00	23	31
87-B-7151	TRI CO BUI	Y		\$61,900.00	\$72,000.00	\$67,698.00	14	21
87-B-7151	LINDSEY LU	Y		\$97,195.00	\$72,000.00	\$67,698.00	35	44
87-B-7151	T & G CONS	Y		\$67,698.00	\$72,000.00	\$67,698.00	-6	0
87-B-7156	FLEETWOOD	Y		\$49,971.00	\$31,813.00	\$23,950.00	54	104

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-7156	?	Y		\$23,990.00	\$31,813.00	\$23,990.00	-25	0
87-B-7156	?	Y		\$32,323.00	\$31,813.00	\$23,990.00	2	35
87-B-7156	?	Y		\$27,900.00	\$31,813.00	\$23,990.00	-12	16
87-B-7156	?	Y		\$38,400.00	\$31,813.00	\$23,990.00	21	60
87-B-7208	F E HARDIN	Y		\$305,000.00	\$415,519.64	\$256,000.00	-27	19
87-B-7208	INDIANA AS	Y		\$264,000.00	\$415,519.64	\$256,000.00	-36	3
87-B-7208	MOELLERIN6	Y		\$256,000.00	\$415,519.64	\$256,000.00	-38	0
87-B-7210	BROCK ELEC	Y		\$87,220.00	\$97,075.00	\$42,500.00	-10	105
87-B-7210	FOUR SEASD	Y		\$65,444.00	\$97,075.00	\$42,500.00	-33	54
87-B-7210	FOUR-SEASD	Y		\$65,444.00	\$97,075.00	\$42,500.00	-33	54
87-B-7210	INTERGRATE	Y		\$53,512.00	\$97,075.00	\$42,500.00	-45	26
87-B-7210	NFTCON	Y		\$42,500.00	\$97,075.00	\$42,500.00	-56	0
87-B-7210	Brock Elec	Y	?	\$87,220.00	\$97,075.00	\$42,500.00	-10	105
87-B-7210	Four SeasD	Y	?	\$65,444.00	\$97,075.00	\$42,500.00	-33	54
87-B-7210	Integrate	Y	?	\$53,512.00	\$97,075.00	\$42,500.00	-45	26
87-B-7210	NFTCON	Y	?	\$42,500.00	\$97,075.00	\$42,500.00	-56	0
87-B-7210	NFTCON	Y	N	\$42,500.00	\$97,075.00	\$42,500.00	-56	0
87-B-7238	BARNES ELE	Y		\$199,750.00	\$149,860.00	\$187,818.00	33	6
87-B-7238	COLLINS EL	Y		\$183,866.00	\$149,860.00	\$187,818.00	23	-2
87-B-7238	D L WOODS	Y		\$257,980.00	\$149,860.00	\$187,818.00	72	37
87-B-7238	ELECTRIC P	Y		\$187,818.00	\$149,860.00	\$187,818.00	25	0
87-B-7247	GINSBAU RD	Y		\$448,800.00	\$663,744.60	\$448,780.00	-32	0
87-B-7247	NU-SEC ROD	Y		\$652,160.00	\$663,744.60	\$448,780.00	-2	45
87-B-7247	TERSTEP RD	Y		\$448,780.00	\$663,744.60	\$448,780.00	-32	0
87-B-7247	THE GUFF S	Y		\$648,300.00	\$663,744.60	\$448,780.00	-2	44
87-B-7264	C.M.A CORP	Y		\$83,686.00	\$101,689.00	\$96,538.00	-18	-13
87-B-7264	DADUA & AS	Y		\$119,964.00	\$101,689.00	\$96,538.00	18	24
87-B-7264	FOUR SEASD	Y		\$149,444.00	\$101,689.00	\$96,538.00	47	55
87-B-7264	JUD CONSTR	Y		\$128,655.00	\$101,689.00	\$96,538.00	27	33
87-B-7264	LOUIS LIND	Y		\$56,538.00	\$101,689.00	\$96,538.00	-5	0
87-B-7264	MYLAR & NA	Y		\$105,207.00	\$101,689.00	\$96,538.00	3	9
87-B-7264	S C. NESTE	Y		\$97,444.00	\$101,689.00	\$96,538.00	-4	1
87-B-7283	THE ELLIS	Y		\$112,310.00	\$95,527.00	\$112,310.00	18	0
87-B-7378	ALDRIDGE E	Y		\$42,100.00	\$55,793.00		-25	ERROR
87-B-7378	ARLINGTON	Y		\$93,098.00	\$55,793.00		60	ERROR
87-B-7378	GERSON ELE	Y		\$77,700.00	\$55,793.00		39	ERROR
87-B-7378	H.V. ALLEN	Y		\$85,300.00	\$55,793.00		53	ERROR
87-B-7378	LION ELEC	Y		\$54,945.00	\$55,793.00		70	ERROR
87-B-7378	MARS ELEC	Y		\$88,694.00	\$55,793.00		59	ERROR
87-B-7378	MYDAN CONS	Y		\$41,087.00	\$55,793.00		-26	ERROR
87-B-7379	BETHLEHEM	Y		\$46,900.00	\$47,089.50		-0	ERROR
87-B-7379	CAN ELEC C	Y		\$1,560.00	\$47,089.50		-97	ERROR
87-B-7379	KOVILIC CD	Y		\$58,532.00	\$47,089.50		24	ERROR
87-B-7379	NAT'L CONS	Y		\$52,574.00	\$47,089.50		12	ERROR
87-B-7379	PRO TECH S	Y		\$44,500.00	\$47,089.50		-5	ERROR
87-B-7700	ELITE ROOF	Y		\$187,000.00	\$217,420.00		-14	ERROR
87-B-7700	KOVILIC CD	Y		\$221,147.00	\$217,420.00		2	ERROR
87-B-7700	BETHLEHEM	Y		\$175,850.00	\$217,420.00		-17	ERROR
87-B-7700	JETCO	Y		\$158,860.00	\$217,420.00		-27	ERROR
87-B-7700	BENNETTA B	?		\$170,500.00	\$217,420.00		-22	ERROR
87-B-7700	E H WOODS	Y		\$217,973.00	\$217,420.00		0	ERROR
87-B-7700	PFOTEC SY	Y		\$243,700.00	\$217,420.00		12	ERROR

CONTRACT#	OFFEROR	SE	S.O.B	BID	60V'T EST	AWARD PRICE	% OF 60V'	% OF AWA
87-B-7700	CROWTHER E	Y		\$186,000.00	\$217,420.00		-14	ERROR
87-B-7700	MM SPRANZ	Y		\$173,659.00	\$217,420.00		-20	ERROR
87-B-7700	AMERICAN R	Y		\$189,772.00	\$217,420.00		-13	ERROR
87-B-7702	POWER SYST			\$24,585.00	\$40,000.00		-39	ERROR
87-B-7702	30 ELECTRI			\$35,269.00	\$40,000.00		-12	ERROR
87-B-7702	WESTINGHOV			\$29,700.00	\$40,000.00		-26	ERROR
87-B-7702	ALD-CASS E			\$57,500.00	\$40,000.00		44	ERROR
87-B-7713	INDUSTRIAL			\$551,000.00	\$603,500.00		-9	ERROR
87-B-7713	BLEUDZIERB			\$727,400.00	\$603,500.00		21	ERROR
87-B-7713	VASAN ENTE			\$626,820.00	\$603,500.00		37	ERROR
87-B-7713	RILEY CONB			\$663,402.00	\$603,500.00		10	ERROR
87-B-7713	BLINDERMAN			\$698,795.00	\$603,500.00		16	ERROR
87-B-7713	MARINO CON			\$693,450.00	\$603,500.00		15	ERROR
87-B-7713	RITE-WAY L			\$671,548.00	\$603,500.00		44	ERROR
87-B-7720	WELKS ENTE	Y		\$24,500.00	\$25,245.00		-3	ERROR
87-B-7720	TMI COATIN	Y		\$38,425.00	\$25,245.00		56	ERROR
87-B-7720	UNIVERSAL	Y		\$37,313.00	\$25,245.00		48	ERROR
87-B-7720	A K SEAMLE	?		\$24,915.00	\$25,245.00		-1	ERROR
87-B-7720	ANDREW LAN	Y		\$68,000.00	\$25,245.00		169	ERROR
87-B-7720	ENERGY SHI	Y		\$32,575.00	\$25,245.00		29	ERROR
87-B-7720	WEATHER SY	Y		\$23,800.00	\$25,245.00		-6	ERROR
87-B-7723	GLACIER PA	Y		\$84,445.00	\$85,344.00		-36	ERROR
87-B-7723	NORTHLAND	Y		\$50,900.00	\$85,344.00		-40	ERROR
87-B-7731	MAXIMUM PR	Y		\$340,226.75			ERROR	ERROR
87-B-7731	ARLINGTON	Y		\$463,148.25			ERROR	ERROR
87-B-7731	BI-STATE S	Y		\$471,375.00			ERROR	ERROR
87-B-7731	SHEEHY SPE	Y		\$449,582.48			ERROR	ERROR
87-B-7731	ATLANTIC P	Y		\$413,658.00			ERROR	ERROR
87-B-7731	EAST CONTI	Y		\$510,161.00			ERROR	ERROR
87-B-7731	GLOSS GUAR	Y		\$298,486.75			ERROR	ERROR
87-B-7731	EASTERN MA	Y		\$467,469.00			ERROR	ERROR
87-B-7731	SECURITY S	Y		\$571,990.00			ERROR	ERROR
87-B-7731	RANDOM PRD	Y		\$597,473.85			ERROR	ERROR
87-B-7731	SJT & T SP	Y		\$767,500.00			ERROR	ERROR
87-B-7731	GRIFFIN SE	Y		\$445,279.85			ERROR	ERROR
87-B-7731	BUSINESS S	Y		\$475,109.00			ERROR	ERROR
87-B-7731	THE SWANSO	Y		\$447,650.18			ERROR	ERROR
87-B-7732	ARLINGTON	?		\$209,000.00	\$160,202.00		30	ERROR
87-B-7732	MARKHAM EL	?		\$205,000.00	\$160,202.00		28	ERROR
87-B-7732	OPTIMUN CD	?		\$237,788.00	\$160,202.00		48	ERROR
87-B-7732	WESTINGHOV	?		\$219,875.00	\$160,202.00		37	ERROR
87-B-7737	AQUA PREP			\$4,150.00			ERROR	ERROR
87-B-7737	DUBOIS CHE			\$70,253.42			ERROR	ERROR
87-B-7737	HOTT CHEMI			\$16,724.00			ERROR	ERROR
87-B-7738	FIRST IMPR			\$44,700.00	\$42,000.00		6	ERROR
87-B-7738	MC SPORT S			\$45,922.00	\$42,000.00		9	ERROR
87-B-7741	AMERICAN C	?		\$47,480.00	\$45,287.00		5	ERROR
87-B-7741	ENERGY SAV	?		\$24,944.00	\$45,287.00		-45	ERROR
87-B-7741	Gerald T.	y		\$58,700.00	\$45,287.00		30	ERROR
87-B-7741	JAMES MARE	?		\$49,483.59	\$45,287.00		9	ERROR
87-B-7741	JAYEIL IND	?		\$36,564.87	\$45,287.00		-18	ERROR
87-B-7741	LYEBURN CON	?		\$62,500.00	\$45,287.00		38	ERROR

CONTRACT#	OFFEROR	SE	S O B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-7741	PARRIS & A	?		\$24,900.00	\$45,287.00		-45	ERROR
87-B-7741	STATE INCU	?		\$34,900.00	\$45,287.00		-23	ERROR
87-B-7747	ALINGTON E	?		\$356,747.00	\$108,914.00		228	ERROR
87-B-7747	CREST SOUT	?		\$163,950.00	\$108,914.00		51	ERROR
87-B-7747	INTEGRATED	?		\$140,949.00	\$108,914.00		29	ERROR
87-B-7747	JCN MAINT	?		\$168,278.25	\$108,914.00		55	ERROR
87-B-7747	MARQUEZ EL	?		\$240,915.00	\$108,914.00		121	ERROR
87-B-7747	MILL VALLE	?		\$295,698.00	\$108,914.00		171	ERROR
87-B-7747	W H REED C	?		\$168,237.00	\$108,914.00		54	ERROR
87-B-7748	SUNRUNNER	Y		\$23,300.00	\$87,195.00		-73	ERROR
87-B-7748	LAMBERT IN	?		\$24,967.92	\$87,195.00		-71	ERROR
87-B-7748	STAGER CON	?		\$24,875.00	\$87,195.00		-71	ERROR
87-B-7748	PHILLIPS N	?		\$24,850.00	\$87,195.00		-72	ERROR
87-B-7748	FOUR STAR	?		\$44,752.00	\$87,195.00		-49	ERROR
87-B-7748	ARLINGTON	?		\$73,450.00	\$87,195.00		-16	ERROR
87-B-7748	W H REED C	?		\$27,880.00	\$87,195.00		-68	ERROR
87-B-7748	MILL VALLE	?		\$57,050.00	\$87,195.00		-35	ERROR
87-B-7748	INTEGRATED	N		\$30,630.00	\$87,195.00		-65	ERROR
87-B-7748	AMERICAN C	Y		\$28,455.00	\$87,195.00		-67	ERROR
87-B-7748	CREST SOUT	Y		\$24,235.00	\$87,195.00		-72	ERROR
87-B-7748	SEPT AR	Y		\$16,075.00	\$87,195.00		-82	ERROR
87-B-7748	JCN MAINT	Y		\$23,582.00	\$87,195.00		-73	ERROR
87-B-7748	MARQUEZ EL	Y		\$47,450.00	\$87,195.00		-46	ERROR
87-B-7758	CENTURY AU	Y		\$96,000.00	\$88,000.00		9	ERROR
87-B-7758	H V ALLEN	Y		\$118,600.00	\$88,000.00		35	ERROR
87-B-7758	SOMERS CO	Y		\$105,900.00	\$88,000.00		20	ERROR
87-B-7760	HOD DISPOS			\$410,840.00			ERROR	ERROR
87-B-7760	BEST SCAVE			\$411,063.81			ERROR	ERROR
87-B-7760	HOOD BROS			\$260,367.24			ERROR	ERROR
87-B-7760	NORTH SHOR			\$475,242.40			ERROR	ERROR
87-B-7763	HOOD BROS			\$161,382.56			ERROR	ERROR
87-B-7763	HOD DISP S			\$159,829.93			ERROR	ERROR
87-B-7763	BEST SCAVE			\$197,657.10			ERROR	ERROR
87-B-7763	ACE DISP S			\$211,876.00			ERROR	ERROR
87-B-7763	NORTH SHOR			\$188,703.89			ERROR	ERROR
87-B-7765	ALLIED BLA	Y		\$60,384.40	\$25,000.00		142	ERROR
87-B-7765	ALLIED BLA	Y		\$60,384.40	\$25,000.00		142	ERROR
87-B-7765	BITUMIOUS	N		\$25,368.00	\$25,000.00		1	ERROR
87-B-7765	BITUMIOUS	N		\$25,368.00	\$25,000.00		1	ERROR
87-B-7768	MERIDIAN C	Y		\$153,200.00	\$103,889.89		47	ERROR
87-B-7773	BENNETT &	?		\$307,000.00	\$318,159.00		-4	ERROR
87-B-7773	E H WOODS	?		\$252,425.00	\$318,159.00		-21	ERROR
87-B-7773	ELITE ROOF	N		\$276,000.00	\$318,159.00		-13	ERROR
87-B-7773	KOVILIC CO	?		\$396,795.00	\$318,159.00		25	ERROR
87-B-7773	M M SCHRAZ	?		\$257,496.00	\$318,159.00		-19	ERROR
87-B-7776	J H EDWMAN	Y		\$45,653.00	\$51,845.00		-12	ERROR
87-B-7776	J H EDWMAN	Y		\$45,653.00	\$51,845.00		-12	ERROR
87-B-7776	SEGA INC	Y		\$54,327.96	\$51,845.00		5	ERROR
87-B-7776	SEGA INC.	Y		\$54,327.96	\$51,845.00		5	ERROR
87-B-7777	F.D. & L.			\$34,116.00	\$93,100.00		1	ERROR
87-B-7777	KENNEDY HT			\$99,795.00	\$93,100.00		7	ERROR
87-B-7777	G.C. SHAW			\$119,137.00	\$93,100.00		28	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-B-7777	ST. LOUIS	Y		\$106,399.00	\$93,100.00		14	ERROR
87-B-7777	LEE MECHAN			\$128,454.00	\$93,100.00		38	ERROR
87-B-7777	HEATROL SE	Y		\$121,814.00	\$93,100.00		31	ERROR
87-B-7777	AIR MASTER	Y		\$128,493.00	\$93,100.00		38	ERROR
87-B-7777	F A ENTERP	Y		\$106,835.00	\$93,100.00		15	ERROR
87-B-7781	BENNETTA B	N		\$194,866.00	\$386,965.00	\$194,866.00	-50	0
87-B-7781	CROTHER EN	N		\$282,500.00	\$386,965.00	\$194,866.00	-40	19
87-B-7781	DUNCAN & S	N		\$223,750.00	\$386,965.00	\$194,866.00	-41	17
87-B-7781	E & H WOOD	N		\$247,060.00	\$386,965.00	\$194,866.00	-36	27
87-B-7781	ELITE ROOF	Y		\$197,629.00	\$386,965.00	\$194,866.00	-49	1
87-B-7781	KOVILIC CO	N		\$352,792.00	\$386,965.00	\$194,866.00	-9	81
87-B-7781	MM SCHRAUZ	N		\$246,744.00	\$386,965.00	\$194,866.00	-36	27
87-B-7781	SPECIALITY	N		\$220,978.00	\$386,965.00	\$194,866.00	-43	13
87-B-7781	WALSDORF R	N		\$242,000.00	\$386,965.00	\$194,866.00	-37	24
87-B-7790	GEORGE C.	Y		\$87,000.00	\$52,891.00		64	ERROR
87-B-7790	R. E. SMIT	Y		\$100,000.00	\$52,891.00		89	ERROR
87-B-7790	DALTON FIL	Y		\$35,693.00	\$52,891.00		-33	ERROR
87-B-7790	CONSTRUCTI	Y		\$81,725.00	\$52,891.00		55	ERROR
87-B-7790	ASTUTE ENE	Y		\$24,307.00	\$52,891.00		-54	ERROR
87-B-7792	KOVILIC CO	Y		\$67,750.00	\$39,000.00		74	ERROR
87-B-7792	MERIDIAN C	Y		\$59,690.00	\$39,000.00		53	ERROR
87-B-7801	AGED SERVI	N		\$79,800.00			ERROR	ERROR
87-B-7801	ECDUPE IN	N		\$158,473.40			ERROR	ERROR
87-B-8130	DAYFIELD C	Y		\$100,850.00	\$62,521.88		61	ERROR
87-B-8130	HOFFMAN &	Y		\$69,380.00	\$62,521.88		11	ERROR
87-B-8130	HOWARD J	Y		\$39,690.00	\$62,521.88		43	ERROR
87-B-8130	OSCAR BERG	Y		\$56,312.00	\$62,521.88		54	ERROR
87-B-8130	PARIS CONT	Y		\$91,990.00	\$62,521.88		31	ERROR
87-B-8130	SOMERS CO	Y	Y	\$115,135.00	\$62,521.88		84	ERROR
87-B-8131	HOFFMAN &	Y		\$0.00	\$65,259.00		-100	ERROR
87-B-8131	JOEL KENNE	Y		\$138,300.00	\$65,259.00		112	ERROR
87-B-8131	A & K CONS	Y	Y	\$65,000.00	\$65,259.00		6	ERROR
87-B-8240	LYMER COSN	Y		\$46,765.00	\$36,400.00	\$30,989.00	28	51
87-B-8240	T & G CONS	Y		\$30,989.00	\$36,400.00	\$30,989.00	-15	0
87-B-8244	GRAVES PLE	Y		\$63,536.00	\$60,600.00	\$55,400.00	5	15
87-B-8244	TRI COUNTY	Y		\$55,400.00	\$60,600.00	\$55,400.00	-9	0
87-B-8244	NEIDIGH CO	Y		\$59,683.00	\$60,600.00	\$55,400.00	-2	8
87-B-8244	MOORE HTG	Y		\$78,493.00	\$60,600.00	\$55,400.00	30	42
87-B-8244	SARGENT CO	Y		\$58,134.00	\$60,600.00	\$55,400.00	-4	5
87-B-8264	MESKINA	Y		\$336,745.00	\$347,400.00		-3	ERROR
87-B-8264	GRAVES PLU	Y		\$304,304.00	\$347,400.00		-12	ERROR
87-B-8264	PEERLESS P	Y		\$464,464.00	\$347,400.00		34	ERROR
87-B-8264	HARRELL ME	Y		\$315,664.00	\$347,400.00		-9	ERROR
87-B-8264	MOORE HTG	Y		\$339,338.00	\$347,400.00		-2	ERROR
87-B-8264	TRIANGLE &	Y		\$325,745.00	\$347,400.00		-6	ERROR
87-B-8284	PEERLESS P	Y		\$379,973.00	\$379,227.00		0	ERROR
87-B-8298	DARHOLZ EX	Y		\$183,688.00	\$306,600.00		-40	ERROR
87-B-8298	SAM OXLEY	Y		\$169,433.00	\$306,600.00		-45	ERROR
87-B-8298	W.D. BARTL	Y		\$189,435.90	\$306,600.00		-38	ERROR
87-B-8298	DAVID ENG	Y		\$253,000.00	\$306,600.00		-17	ERROR
87-C-4702	OPTIMUN CO	Y		\$44,838.00	\$30,740.00		46	ERROR
87-C-4702	ROB G RIPP	Y		\$72,215.00	\$30,740.00		154	ERROR

CONTRACT#	OFFEROR	SB	S.D.B	BID	GOV'T EST	AWARD PRICE	% OF GOV'	% OF AWA
87-C-5007	FLETCHER-H	Y		\$269,065.00	\$184,549.00		46	ERROR
87-C-5007	PARRIS & BI	Y		\$247,211.00	\$184,549.00		34	ERROR
87-C-5007	RIFFER INC	Y		\$245,111.00	\$184,549.00		34	ERROR
87-C-5008	MIED CONET	Y		\$256,234.00	\$184,549.00		33	ERROR
87-C-5008	MAGNUM INC	Y		\$222,294.00	\$184,549.00		75	ERROR
87-C-5008	PNM CONET	Y		\$169,645.00	\$184,549.00		3	ERROR
87-C-7770	MET CON	?		\$35,003.00	\$34,500.00		1	ERROR
87-C-7770	STEEL STRU	Y		\$34,990.00	\$34,500.00		1	ERROR
87-D-2642	NAT'L CORP	Y		\$14,350.00			ERROR	ERROR
87-D-3408	MAXIMUM PR	N		\$230,732.00			ERROR	ERROR
87-D-3408	COMMAND SE	Y		\$184,550.00			ERROR	ERROR
87-D-3408	THE SWANED	Y		\$169,973.44			ERROR	ERROR
87-D-3408	RELANCE C	Y		\$174,326.00			ERROR	ERROR
88-B-0013	J.Q. KASIN	Y		\$2,947,000.00	\$2,831,000.00		4	ERROR
88-B-0013	CARLIN CON	Y		\$3,056,903.00	\$2,831,000.00		3	ERROR
88-B-0013	C.F. FLEWI	Y		\$221,890.00	\$2,831,000.00		-59	ERROR
88-B-0297	WM F. GAVI	Y		\$193,908.00	\$206,200.00		-6	ERROR
88-B-0297	GASTAR COR	Y		\$196,000.00	\$206,200.00		-5	ERROR
88-B-0297	DANTE'S CD	Y		\$134,255.00	\$206,200.00		-35	ERROR
88-B-0297	MAGNUM INC	Y		\$151,600.00	\$206,200.00		-27	ERROR
88-B-0297	PIONEER CD	Y		\$173,000.00	\$206,200.00		-16	ERROR
88-B-0297	FARINELLI	Y		\$219,832.00	\$206,200.00		7	ERROR
88-B-0297	SENWALT IN	Y		\$117,840.00	\$206,200.00		-43	ERROR
88-B-0297	W.F. DICKI	Y		\$143,740.00	\$206,200.00		-28	ERROR
88-B-0297	COUNSEL CD	Y		\$153,200.00	\$206,200.00		-26	ERROR
88-B-5101	PYRD INST	Y		\$129,392.00	\$103,590.42		25	ERROR
88-B-5101	J.P. MECHA	Y		\$158,265.00	\$103,590.42		53	ERROR
88-B-5101	ASSOCIATED	Y		\$128,700.00	\$103,590.42		24	ERROR
88-B-5101	DEL-VAL ME	Y		\$177,181.00	\$103,590.42		71	ERROR
88-B-5101	F.M. NORTH	Y		\$129,517.00	\$103,590.42		25	ERROR
88-B-5101	PETERSON S	Y		\$149,290.00	\$103,590.42		44	ERROR
88-B-5101	SCHAEFFER	Y		\$34,496.00	\$103,590.42		-18	ERROR
88-B-5101	ACME PLMG	Y		\$121,481.00	\$103,590.42		17	ERROR
88-B-5101	H.V. ALLEN	Y		\$171,000.00	\$103,590.42		65	ERROR
88-B-5101	K.H.M. DSG	Y		\$177,400.00	\$103,590.42		71	ERROR
88-B-5101	F.W. VESPE	Y		\$112,000.00	\$103,590.42		8	ERROR
88-B-5101	SARED INC	Y		\$63,933.00	\$103,590.42		-13	ERROR
88-B-5101	TAMI-GITHE	Y		\$131,500.00	\$103,590.42		27	ERROR
B-7701	SERVICE CD	Y		\$5,608.00			ERROR	ERROR
B-7701	MINE MAID	Y		\$25,918.00			ERROR	ERROR
B-7701	? ENGINEER	N		\$4,696.74			ERROR	ERROR
B-7701	JADE SERVI	N		\$14,498.65			ERROR	ERROR
B-7701	INTEGRITY	N		\$29,927.00			ERROR	ERROR
B-7701	?	N		\$11,212.25			ERROR	ERROR
B-7701	THE ENTON	Y		\$23,104.80			ERROR	ERROR
B-7701	INDUSTRIAL	N		\$26,920.15			ERROR	ERROR

APPENDIX F
CONTRACT GROWTH ANALYSIS

CONTRACT GROWTH
TITLE II
CONTRACTS.

FROM: NORTH DIV CIMS DATABASE

- ONLY CONTRACTS PROVEN TO BE TITLE II AWARDS
- CONTRACTS IN EXCESS OF \$10,000
- CONTRACTS CLOSED-OUT PRIOR TO 30 JUN 1988
- OBVIOUS CUSTOMER REQUESTED CHANGES WERE ELIMINATED

NUMBER OF
CHANGES

$$N = 74 \text{ Contracts} \quad \sum x^2 = 3380$$

$$\sum x = 328 \text{ changes} \quad (\sum x)^2 = 107584$$

$$\bar{x} = \frac{328}{74} = 4.4 \text{ Changes/contract}$$

$$s^2 = \frac{3380 - \frac{107584}{74}}{73} = 26.38$$

$$s = 5.14$$

- CALCULATED AS: $\frac{\frac{\$ \text{ INCREASE}}{\$ \text{ BID}}}{\sum \# \text{ CONTRACTS}} \times 100\%$

AVERAGE CONTRACT
\$ GROWTH

$$n = 74 \quad \sum x^2 = 1822.13$$

$$\sum x = 169.32 \quad (\sum x)^2 = 28669.26$$

$$\bar{x} = \frac{169.32}{74} = 2.29 \% \text{ of Bid Price}$$

$$s^2 = \frac{1822.13 - \frac{28669.26}{74}}{73}$$

$$s^2 = 19.65$$

$$s = 4.43$$

- AVERAGE CONTRACT COST \$885,000
- Average Modification = $\frac{0.0229(885,000)}{4.4} = \4606

CONTRACT GROWTH UNRESTRICTED COMPETITION

FROM: NORTHERN DIVISION CMS DATABASE 1981-1988

- ONLY CONTRACTS PROVEN TO BE AWARDED TO LARGE BUSINESSES WERE INCLUDED IN ANALYSIS. SEVERAL WERE ADVERTISED AS UNRESTRICTED BUT WERE AWARDED TO SMALL BUSINESS
- ALL CONTRACTS HAVING QUESTIONABLE CHANGES (CUSTOMER REQUESTED AND REDUCED SCOPE TO STAY WITHIN FUNDING) WERE NOT INCLUDED IN THE ANALYSIS
- AVERAGE CONTRACT COST \$3.6 Million

AVERAGE CONTRACT
\$ GROWTH

$$n = 23$$

$$\sum x^2 = 2620.56$$

$$\sum x = 157.82$$

$$(\sum x)^2 = 24907$$

$$\bar{x} = 6.86\% \text{ of Award Price}$$

$$s^2 = \frac{2620.56 - \frac{24907}{23}}{22} = 69.89$$

$$s = 8.36$$

NUMBER OF
CHANGES

$$n = 23 \text{ Contracts}$$

$$\sum x^2 = 9103$$

$$\sum x = 323 \text{ Changes}$$

$$(\sum x)^2 = 104329$$

$$\bar{x} = \frac{323}{23} = 14 \text{ Changes per Cont.}$$

$$s^2 = \frac{9103 - \frac{104329}{23}}{22} = 207.6$$

$$s = 14.4$$

$$\text{AVERAGE CONTRACT COST } \$3.60 \text{ Million}$$

$$\text{AVERAGE MODIFICATION COST} = \frac{\$3,600,000(0.0686)}{14.4}$$

$$= \$17,150$$

NUMBER	AVAL	MOD	CONTRACT				ANALYSIS			
			TITLE OF CONTRACT				TITLE OF ANALYSIS			
			# OF AVAL				# OF MOD			
1	040000	0000	10.00			107.67	1			1
2	040000	4000	1.00			1.00	10			10
3	040000	4000	1.00			1.00	10			10
4	040000	0000	1.00			1.00	10			10
5	040000	0000	1.00			1.00	10			10
6	040000	0000	1.00			1.00	10			10
7	040000	0000	1.00			1.00	10			10
8	040000	0000	1.00			1.00	10			10
9	040000	0000	1.00			1.00	10			10
10	040000	0000	1.00			1.00	10			10
11	040000	0000	1.00			1.00	10			10
12	040000	0000	1.00			1.00	10			10
13	040000	0000	1.00			1.00	10			10
14	040000	0000	1.00			1.00	10			10
15	040000	0000	1.00			1.00	10			10
16	040000	0000	1.00			1.00	10			10
17	040000	0000	1.00			1.00	10			10
18	040000	0000	1.00			1.00	10			10
19	040000	0000	1.00			1.00	10			10
20	040000	0000	1.00			1.00	10			10
21	040000	0000	1.00			1.00	10			10
22	040000	0000	1.00			1.00	10			10
23	040000	0000	1.00			1.00	10			10
24	040000	0000	1.00			1.00	10			10
25	040000	0000	1.00			1.00	10			10
26	040000	0000	1.00			1.00	10			10
27	040000	0000	1.00			1.00	10			10
28	040000	0000	1.00			1.00	10			10
29	040000	0000	1.00			1.00	10			10
30	040000	0000	1.00			1.00	10			10
31	040000	0000	1.00			1.00	10			10
32	040000	0000	1.00			1.00	10			10
33	040000	0000	1.00			1.00	10			10
34	040000	0000	1.00			1.00	10			10
35	040000	0000	1.00			1.00	10			10
36	040000	0000	1.00			1.00	10			10
37	040000	0000	1.00			1.00	10			10
38	040000	0000	1.00			1.00	10			10
39	040000	0000	1.00			1.00	10			10
40	040000	0000	1.00			1.00	10			10
41	040000	0000	1.00			1.00	10			10

	CONTRACT	GROWTH	ANALYSIS			
	TITLE 10 CONTRACTS					
NUMBER	AWARD #	MOD #	# OF AWARD	YRAC	# OF MODS	MODS#42

41	187000	-10074	-6.00	10.40	1	0
42	216000	-7700	-1.00	10.40	1	100
44	707040	10000	2.00	4.00	2	4
45	400000	0000	0.00	0.00	1	0
46	166000	0	0.00	0.00	2	4
47	010000	10000	0.04	10.00	4	10
48	100000	0	0.00	0.00	1	0
49	00000	0	0.00	0.00	1	4
50	100000	0000	0.00	0.00	1	0
51	040000	10000	0.00	0.00	0	0
52	24000	0	0.00	0.00	0	10
53	171000	177.0	10.00	10.04	0	0
54	107000	740	0.00	0.04	4	10
55	40000	0	0.00	0.00	0	4
56	200000	00040	0.40	0.00	2	4
57	100000	-1000	-0.00	0.00	0	0
58	100000	07100	0.00	0.00	10	100
59	464040	0000	0.00	0.00	0	0
60	2004077	07700	0.00	0.04	10	100
61	014000	1000	0.00	0.00	0	10
62	100000	0	0.00	0.00	0	40
63	47000	0	0.00	0.00	4	0
64	00000	0	0.00	0.00	0	0
65	000000	0	0.00	0.00	0	0
66	01000	0	0.00	0.00	0	0
67	07000	0	0.00	0.00	0	0
68	20000	0	0.00	0.00	0	0
69	000000	0000	0.00	0.00	0	0
70	107000	0	0.00	0.00	0	0
71	00000	-0000	-4.00	10.00	0	0
72	110000	1000	0.00	0.00	0	0
73	00000	0	0.00	0.00	0	0
74	00000	0	0.00	0.00	0	0

935000.00	24000.04	0.00	1000.00	000	0000
	0.00	1000.00			

N. MEER	CONTRACT		BROUTH		ANALYSIS	
	A4480 \$	MOD \$	# OF A4480	# OF MODS	# OF MODS	MODS #1
1	8817489	820880	11.08	111.88	34	1.88.00
2	2817.000	1118877	8.80	11.18	40	1.88.00
3	8841808	78887	1.08	1.17	10	1.88.00
4	3788488	21481	8.88	28.87	18	1.88.00
5	8888871	214781	1.18	4.87	28	8.08.00
6	8881800	288887	8.18	27.87	28	8.08.00
7	4488888	118.1	1.87	8.08	1	4.88
8	488888	28888	8.11	28.88	8	8.88.00
9	8841801	78888	18.18	171.88	18	1.88.00
10	417881	40888	18.88	111.88	8	28.88
11	2882881	81881	14.88	214.14	18	1.88.00
12	187888	21881	8.87	7.18	18	288.00
13	1888881	118.4	1.81	7.81	18	1.28.00
14	788188	78881	8.80	8.18	28	4.81.00
15	718888	788288	11.08	111.08	88	2882.00
16	888888	184814	18.81	188.88	8	8.88.00
17	787888	288888	84.7	1884.71	8	8.88.00
18	188888	41881	2.17	4.71	1	8.88
19	88888	0	8.18	1.88		1.88
20	118888	-7887	-7.08	81.08	2	4.88
21	88888	0	0.00	1.00	1	1.88
22	188888	28484	18.88	288.88	8	28.88
23	184888	-1881	-1.88	1.78	1	4.88
<hr/>						
	8804878.88	287288.40	8.88	2881.88	108	8118.00
		8.88.00	187.11			

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/83

61

DOLLAR RANGE OF AWARD (\$300) <

JUN30

ROCDU:

	DESCRIPTION	BOC	AWARD AMOUNT	CUMPRI-AWARD	CUMPRI	LAST MOD NBR
73662	INSTAL - SURGE TANK	880325	24,875		27,503	-31
73665	SITE PREPARATION B-427 V	880531	75,155	2,524	82,437	-02
73670	RPRS TO WASTE WATER	880423	13,903	5,281	13,903	
73700	REPL. EMER. EXIT DOORS	880531	15,888		15,888	
73313	INSTAL - EARTH COVER	871218	13,585		13,585	
72568	DRJM RACKS STORAGE AREA P	871116	13,608		13,608	
72584	ASBESTOS REMOVAL	871130	15,803		15,803	
72714	RMV SKYLIGHT RPR ROOF	871213	23,393		23,393	
31650	ASBESTOS REMOVAL, B-61 A	890117	440,375	967-	440,375	-33
31551	ACOUSTICAL CEILING INST-	890120	20,303		19,351	-32
31565	RPR ELEVATOR B-43, VETC	880217	14,217		16,217	
32508	OIL PIPELINE HARPSWELL C	871115	41,385	4,532-	36,754	-32
32600	ASBESTOS REMOVAL	890129	14,583		14,583	
32605	DEADBO-T LOCKS	890426	15,921		15,921	
32607	CARBON DIOXIDE FIRE EXT.	880322	11,203	323	11,523	-32
32915	REPL AIR CONDENSERS	890536	14,925		14,925	
33004	RPR PARTS / ENGINE #5	880428	14,463		16,463	
33347	MOVE SCID MOUNTED GENERAT	871130	14,533	1,533-	12,933	-01
33363	INSTAL - OF OIL DRI> PAYS	880531	24,393		26,393	
33709	SAND/SEAL OAK FLOORS	880232	18,303		18,303	
33712	INSTAL - FLOOR TILES B#84	880237	18,912		18,912	
33722	SAND & SEAL OAK FLOORS J	880536	12,803		19,803	
33826	INTERIM FAC. MNT. REPRS.	880524	24,963		24,963	
34100	INSTAL - ELECTR. DRYERS	880217	14,275		15,393	
34280	INSTAL - FIREPROOFING	890534	21,785	815	21,785	-01
35657	RENOVATE AIRLOCKS M	880135	15,003		15,003	
35659	REMOVE EXISTING LETTERING	880434	11,763		11,760	
35663	INSTAL - SUBMERSIB-E PJMP	880317	15,384		16,384	
35664	DRAINAGE FACILITIES ORTS.	890210	12,095		12,095	
356201	BLDG. ELEVATOR REPRS.	890215	13,253		10,253	
356371	ASBESTOS REMOVAL	880534	11,435		11,435	
356406	REPLACE CROWN TILE	880136	12,203	1,508	13,708	-02
33204	WATER SYSTEM, BLDG 151 M	871228	12,403		12,403	
33217	REPL. ADHERED EPDM ROOF	880111	14,358		14,358	
33421	HIGHWAY REFLECTORS	820228	23,085		23,085	
334229	REPL. OF FLOOR COVERING	890536	14,733	1,933	16,503	-31
335232	APPLY PRIME COAT	880536	15,465		16,465	
33364		710422	21,545	9,332	30,783	-32
33364			1,005,823,204	83,731,334	1,089,521,508	
33364	2498					

PNDWOF-STAFF1.CNT-

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BDD IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

60	08JUN80	PROCDOC	RUN DATE: 37/J5/83	DESCRIPTION	POD	AWARD AMOUNT	MOD AMT CURPRI-AMT	CURPRI	LAST MOD NR
				ALTERATIONS TO 377300-2 C	870307	12,303		12,803	-01
				SECURITY ADD'S TO FENCE C	890304	15,443		16,443	-03
				INSTAL COMPUTER EQUIPMENTS	890423	112,313	1,800	114,113	-03
				3 MONTH LAMFILL	870310	13,775		13,775	-05
				CONST. TRAC FOUNDATIONS P	870328	62,500		62,500	-05
				SEAL COAT RUNWAY F	871028	229,225	55,546	315,471	-05
				INSTL EYEWASHER & SHOWERS	870422	11,290		11,290	-02
				RHV EXISTING CEILING FANSH	870410	15,437		15,437	-02
				KITCHEN QTRS A	871006	23,199	1,590	24,879	-02
				PROVISION OF LANDFILL L	870530	13,775		13,775	-02
				REPLACE DOCK LEVELERS	871026	13,473		13,473	-02
				REPLACE HOT WATER HEATER	870919	16,390		16,390	-02
				REPR. CLOSED CIRCUIT TV HG	870105	16,500		16,500	-02
				EXT. PVTG. FAN HSS P	870309	17,658		17,658	-05
				SMALL CRAFT BOAT HOUSE V	870212	47,553	5,274	481,924	-05
				ROOF REPLACEMENT-B-1212	870310	11,869	1,582	12,451	-02
				MODRING EYES TAXIWAY J	870708	11,869		11,869	-02
				ROICC OFFICE RENAS	870304	13,413	3,216	19,629	-02
				REPAIR MANHOLE 1-1	871235	13,930		13,930	-02
				PERFORM ROOF REPAIRS N	870729	13,519		13,519	-02
				INSTAL FENCING	890210	13,227	2,804	16,031	-02
				FAM HSS-REPLACE SEWER -INM	871207	17,855		17,855	-01
				INSTAL DIRECT BURIAL S	930318	96,409	2,000	98,409	-01
				REMOVAL OF CARPET M	871112	12,000	500	12,500	-01
				PROTECTIVE ROOF COATING W	880104	31,250		31,250	-01
				REWIRE CAD/CAM ROOM F	870307	13,150		13,150	-01
				EXIT DOORS	871230	16,985		16,985	-01
				CONSTRUCT ROADWAY 3-2255 T	871006	13,750	2,000	15,750	-01
				MOD. OF STORAGE MAGAZINE T	890404	45,848		45,848	-01
				INSTAL PARTITION WALLS S	871209	15,700		15,700	-01
				REPL. COMPUTER RM FLOOR	830518	30,989		30,989	-01
					871109	22,078		22,078	-01
				RESTROOMS & ALTERATIONS T	880504	55,400	1,790	57,190	-01
				REPL. AIR HANDLING UNIT M	830126	13,210		13,210	-01
				SEWER -INF. PLOG. 2-90 M	871202	12,000		12,000	-02
				RENOVATE ENTRANCE 3-DO. 13C	871016	14,500		14,500	-02
				ROOFING REPAIR PLOG. 27-16	871105	23,740	5,242	28,982	-02
				INSTAL GUARDRAIL H	871210	12,400		12,400	-02
				REPAIR DUNGER HARVE S	871203	14,950		14,950	-01
				INSTAL DATA CABLE	871209	18,894		18,894	-01
				REPLACE TRANSFORMER #175 C	871228	11,867	235	12,103	-01

PVDMUF.STAFF1.CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

59	37/05/95	DOLLAR RANGE OF AWARD (\$3000) K	LAST MOD V				
PRCDDOC	DESCRIPTION	HOD	AWARD AMOUNT	CURPRI-AMOUNT	MOD AMT	CURPRI	LAST MOD V
877022	REPAIR CURBS & SIDEWALKS C	871027	33,762	4,558		38,320	-01
877023	REPLACE LIGHTING S	870512	15,400			16,400	
877025	REPLACE HEATING SYSTEMS E	870308	43,408			43,408	
877030	COMPRESSED GAS STORAGE T	850216	13,782			19,782	
877039	CONSTRUCT ROADWAY	870501	17,373			17,373	
877044	RAV4R FAC ADD'L BLDG. 2000H	820407	150,992	3,577		154,569	-02
877049	REMODE - CAPTAIN'S OFFICE N	870508	17,449	3,322		20,471	-01
877053	REPLACE PUMPS G	870702	21,048			21,048	
877055	FAM HASG--REPAIRS H	871230	59,285	76		59,361	-01
877056	REPL. CULVERT & HEADWALLST	870526	15,900			16,900	
877058	ALT'S TO BLDG. 2035 T	880612	235,168			235,168	
877060	REPL. CARPET BLDG. 2340 C	870530	33,500	14,300		38,500	-02
877062	REPAIR TO COMMISSARY B 13943	890402	115,741			130,741	
877063	REPLACE DISTASTER HO3N J	871009	23,400			23,400	
877070	AIR COMPRESSOR T	870907	13,265			13,265	
877077	REPL. RAILROAD CROSSING S	871123	42,500			42,500	
877080	W-LIFE WATERING STRUCTU	871028	10,200			10,200	
877082	REPL. OF CULVERTS S	871024	44,465			44,465	
877090	REPLACE UNIT HEATERS M	830211	20,392			20,392	
877097	ASPHALT PAVEMENT CRACK O	871001	59,345			59,345	
877098	INSTALLATION OF CARPET C	870510	15,772			15,772	
877102	ROOF REPAIRS B	871130	13,937			13,937	
877106	REPAIR WALK AND STEPS T	870516	35,495			35,495	
877107	REPLACE CARPET BLDG. 3331C	871120	13,184			13,184	
877111	BRIDGE TIE REPLACEMENT C	870526	32,789			32,789	
877115	INSTALLATION OF EARTH SATM	880307	13,000	17,500		30,500	-01
877119	INSTALL OF 30V'T FURN. JPS-	871003	67,598			67,598	
877151	2ND FLR. ADDITION AT B-DGT	880405	11,535			11,535	
877153	CONSTRUCT NEW PARKING -DTS	871005	23,990			23,990	
877156	RELOCATE CO2 TANK AND SYS	880416	19,050			19,050	
877157	COMPUTER LINK BLDG. 36 F	871228	15,589			15,589	
877163	CONSTRUCTION BUILDING H	871117	12,595			12,595	
877166	AIR COMPRESSOR ENCLOSURE T	871208	13,989			13,989	
877167	INSTALLATION OF WINDOWS	880122	23,990			23,990	
877201	FIBER OPTICS INSTA--ATION	870510	42,317			42,317	
877206	RESTRIPE PARKING LOTS M	880511	256,000	7,963		263,963	-01
877229	PROVIDE ELECTRICAL SVC L	871101	12,500	9,359		12,500	-01
877237	REPAIR ROOF 5/1002 M	871028	187,818			187,818	-01
877238	REPLACE TRANSFORMERS E	890514	82,315	2,589		84,905	-01
877239	REPLACE ELECTRICAL FEEDER	890304	92,670	3,358-		92,670	-01
877264	WALL EYE STORAGE BLDG. L	880418	96,538			96,538	-01

PVMDK, STAFF1, NTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 900 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/89

57

DOL-AR RANGE OF AWARD (\$5000) K

08JUN80

PR3CDOC

LAST
MOD VBR

CURPRI

MOD AMT
CURPRI-AWARD

AWARD
AMOUNT

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BDD IS PAST AND ACTUA-
SOURCE: CMS EXTRACT FILE

JE	SS	RUN DATE:	07/05/86	DOLLAR RANGE OF AWARD (\$300) K	MOD AMT	CURPRI	LAE
PRCDDOC		DESCRIPTION	MOD	AMOUNT	CURPRI-AMOUNT		MOD
371532		REPL.MNT WATER TANKS 355 P	830229	67,553		67,553	-
371533		EXERCISE AREA 29LG-1 LUCE R	830128	172,453	1,551	174,004	-
371644		FLOOR REPL. BLDG. 1153	671123	24,616		24,616	-
371645		ENT.DODR REPL. BLDG. 1103	671229	24,137		24,137	-
371646		REPL.COND TANK NO.1-B.7 S	850239	53,103		53,103	-
371655		REDOOF BLDG. 300	871124	63,184		63,184	-
371671		CONDENSATER B.43 PIER 2 N	671019	24,603	19,734	44,304	-
371673		LIGHTING BLDG. 109	671224	25,292	11,133	37,482	-
371680		COMPUTER RM. EXP. 2 J. 1176C	671026	24,542		24,542	-
371691		FENCING, CLOYNE CT. MS. D	670512	13,485		13,485	-
371700		ALTS DIVING AREA BLDG. 355G	671234	49,843		49,843	-
371720		NEW ROOFING BLDG. 122	840333	53,485		53,485	-
371726		REFUSE BOLLER 1, A.C-115 S	671134	39,415	19,933-	19,483	-
371762		EXT. PAINT. B.102-107, 103	671126	24,151	345	24,996	-
371769		REP. WALLS/CEILING R.101G	390327	111,343		111,343	-
371800		RPR CURTAIN WALL	671125	13,703		13,703	-
371802		REP. WINDOWS B.0205	671218	13,503		13,503	-
371834		RPR FC-DING PARTITION 350	630412	13,879		10,879	-
372106		PAINT DATA CRANES	671114	196,963	65,751	262,711	-
372134		DEMOL. L.C.C. DUCT REPS	670714	13,203		13,203	-
372142		RPR FRESH WATER DIST SYS C	671026	275,673	21,233	297,973	-
372143		REPAIR CHAVE RAIL	671021	259,235	44,296	302,531	-
372181		ROOF RPR AT STB H-27	671011	14,203	575	14,375	-
372199		DEM OF VAN SUGS	671239	63,503		63,503	-
372426		MASSEY RPR DD41 SEAT	670337	17,963		17,963	-
372433		ELECT MOD B-DY BUSCTR RV	671224	13,845		13,845	-
372505		2ND AVE. PARKING	671118	55,095		55,095	-
372511		HANJAN BUS	360334	33,703		33,703	-
372514		B.354 HEATING SYS JGRADEG	671110	37,723	3,596	41,319	-
372530		NEW TELEPHONE EXCHANGE	630138	162,003	3,585	165,588	-
372531		REMOVAL ASBESTOS MFR 25J H	671234	80,403		80,403	-
372549		STJCCU REPAIR	670312	34,403	3,939	38,342	-
372558		CUM. CABLE INSTALLATION	630310	24,996	293	25,289	-
372559		CONCRETE PARKING REPAIR H	671039	81,711		81,711	-
372572		GENERATOR ADDITION	630112	22,203		22,203	-
372617		SCRUSSER VESSEL REPAIR E	670930	11,803		11,803	-
372645		SEALING OF JOINT CRACKS	671127	14,934		14,934	-
372604		REPAIR SPINKLE	670315	20,426		20,426	-
372616		RPR TO AIRCRAFT PAVEMENTS	671113	37,133		37,133	-
372813		REPL. SIDEWALK PLOG 49	630413	97,003		97,003	-
372824		PAINTING OF FAM HSJ UNIT M	670723	12,063		12,063	-

PVMDP.STAFF1.CNT.

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BJD IS PAST AND ACTUAL-
SOURCE: CMS EXTRACT FILE

56	PROCDG:	56	RUN DATE:	07/05/89	DOLLAR RANGE OF AWARD (\$000) <	AWARD AMOUNT	MOD AMT CURPRI-AMT	CURPRI	LAST MOD N-1
			DESCRIPTION	RCD					
872831			REPAIR ELECT. FEEDER	F	871211	11,853		11,853	-01
872915			FOUNDATIONS	S	871221	45,661	3,480	50,141	
872926			INSTAL. CARPET		871231	10,411		10,411	
872938			RNV EXIST'NG COIL	A	871130	11,900		11,900	
873002			REPLACE SHOWER STA--S	P	871021	17,542		17,542	
873007			COP63 VOICE CON CUTTER ME		881129	71,490		71,490	
873010			REDOOF FLOORS 501 & 502	M	890112	55,420	4,138	60,558	-01
873200			REPAIR FUEL TANKS	S	870204	29,382		29,382	
873206			SMALL ARMS BERM MOD GRIFPH	S	870228	15,450		15,450	
873209			WIDEN JEPH FIRE ACCESS RD		871035	17,718		17,718	
873224			REPS TO 2ND FLOOR HEAD		830106	12,850		12,850	-01
873233			UNDER-BUNKER CONVEYOR RPR		870230	12,960		12,960	
873238			LADDERS & STAIRFORMS	R	880303	97,612		97,612	
873242			ALT TO RMS 1023-1033	N	880121	23,843		23,843	-01
873323			RENOV. TO STAFF LOUNGE	A	870308	14,175		14,175	
873336			ALTS. OF LAB	L	880107	29,800	2,700	32,500	-01
873358			CLEANING OF CULVERTS	S	870316	13,120		13,120	
873375			RPR ENTR. DOORS	D	870512	15,395		15,395	
873403			RPR TO MECH. SYS	G	880301	139,794	2,337	142,131	-02
873422			MODIFICATIONS TO FACILITY	P	880124	84,290	950	85,240	-01
873426			ROOF REPAIR		871214	74,000	1,325-	72,175	-01
873434			RELOCATE WATER MAIN BASE	G	870520	11,400	1,500	12,900	-01
873474			MOD RR SIGNALLING DEVICES	P	871223	14,655		14,655	-01
873476			REPAIR COOLING TOWER BANK	C	870702	12,331		12,331	-01
873494			OR FLRS 544	C	890124	52,300		52,300	
873532			REPAIR OF FEEDER	C	870518	14,000		14,000	
873538			REPLACE GAS TANK	Z	871128	24,950	1,735	26,685	-01
873559			INSTALLATION FUEL OIL	G	871231	13,600		13,600	
873565			CONVEYOR BELT LIPT 3105	U	870201	14,200		14,200	
873588			EMERG. RPR FEED-R	C	870522	12,230	1,781	12,230	-01
873595			RPR ELECTRICAL FEEDER	C	871018	21,400		21,400	
873598			AIR CONDITIONING REPAIRS	C	880301	37,295		37,295	
873615			OL/WATER SEPARATOR	H	890501	73,400		73,400	
873646			EMERG OVERHUL TURBINE	G	870715	13,600		13,600	
873652			INSTALL. DISHWASHERS	B	880331	35,558	2,576	38,134	-02
873681			ASBESTOS REMOVAL	D	871220	110,600		110,600	
873682			RPR CENTRACV CHILLER	N	870321	22,745	2,557	22,745	-01
873684			SITL RPR FOR X-RAY SYS	C	880319	45,611	3,192	49,803	-01
873698			INSULATE PIPING	P	871204	15,000		15,000	
873695			ELECTRIC SERVICE	J	871219	15,344		15,344	
873700			DOOR REPLACEMENT B-36,44		880229	15,800		15,800	
873702									

PVCMDF.STAFF1.CVT.

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BDD IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

PRCDDOC	RUN DATE:	07/05/69	DOL-AR RANGE OF AWARD (\$3000) K	DESCRIPTION	PO	AWARD AMOUNT	MOD ANT CURPRI-AWARD	CURPRI	LAST MOD \
867080	52			STABILIZE -ANDSLIDES	0	259,923	25,771	285,591	-0
867085				REPAIR/REPLACE CULVERTS	T	54,603	2,400	57,003	-01
867086				EROSION CONTROL	T	47,453	150	47,603	-01
867087				SLIDE REPAIR	T	29,903	5,250	35,153	-01
867096				SLOPED ROOF REPAIRS	H	183,903	2,500	186,403	-01
867098				HIGHWAY RESURFACING	O	369,642		369,642	-01
867104				OUTDOOR RANGE	L	152,552	5,290	157,842	-01
867105				ADDN'S & ALTS. TO 3. 3331L	U	169,275	1,005	170,280	-01
867106				ADDN'S & ALTS. TO 5-2044	U	195,003	1,352	196,355	-01
867111				HIGHWAY RESURFING 4-53	O	121,282	4,945	126,227	-01
867114				PROT. BARRIERS FOR WELLS		13,500		13,500	-01
867118				FISH REARING POND		11,903		11,903	-01
867125				PARKING LOT EXTENSION	O	33,995	1,357	35,352	-01
867126				ALTERATIONS TO BLDG. 23705	G	51,595	5,200	56,795	-01
867129				FAMILY HOUSING REPAIRS	G	45,754	1,396	47,150	-01
867224				MANUFACTURING SUPPORT	I	179,003	485	179,488	-01
867230				ROOF REPAIRS 6/1103	M	39,903	39,000	78,903	-01
867237				ALTERATIONS TO 0/503	R	159,003	8,879	167,882	-01
867242				EMERGENCY POWER OUTRAGE	H	12,061		12,061	-01
867302				RPR TO BLDG. 32	C	187,490	11,358	198,848	-01
867305				PERIMETER FENCE TRAILER	Y	12,513		12,513	-01
867324				EXHAUST DUCT 0-39643	Y	14,203		14,203	-01
867346				RPR SOUTH -EANTO HEAT SYSD	D	122,203		122,203	-01
867348				RPR/ALT BLDG #50	N	147,005	2,764	149,769	-01
867358				REROOF BLDG. 9H/44 & 02	R	31,823	3,530	35,353	-01
867700				RPR STORM SEWER	D	895,003	80,371	975,374	-01
867715				ADDITION TO BUILDING 27109	D	137,385		137,385	-01
867717				RPR/ALTS TO 02500 STAIRSC	D	10,793		10,793	-01
867722				OXYGEN SYSTEM REPAIR	D	139,703	17,332	157,035	-01
867730				RPR ROOF 0-1125	S	172,503	1,494	173,997	-01
867735				RESURFACE TENNIS COURTS	F	34,669		34,669	-01
867736				REPAIR WINDOWS	S	11,445		11,445	-01
867745				GROUND FAULT BREAKERS	S	34,373		34,373	-01
867746				RPR CATHODIC PROT SYSTEM	S	10,865	1,351	12,216	-01
867749				RPR BLDG 6 STREET SIGNS	A	10,415	1,939	12,354	-01
867757				SMILK STRUCK	A	13,500		13,500	-01
867762				DEAD SI-O NORTH 9L03 11	V	15,775		15,775	-01
867767				INSTL METAL STORAGE RAYS	M	43,003	2,700	45,703	-01
867768				REPAIR OFFICE SPACES	M	95,672		95,672	-01
867770				PURCHASE OF DUMP TRUMPS	N	74,331	1,725	76,056	-01
867772				GEN. RM. COOLING, SECURITY					-01

PVDMJF.STAFF1.CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

50	RUN DATE:	07/05/80	DOLLAR RANGE OF AWARD (\$300) K	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD VS
PRCDOC	DESCRIPTION	FUD					
805155	EXT PAINTING VAR BLOS	870106	21,695		15,593	21,695	-01
805156	EXT PAINTING VAR M-DGS	870327	52,783			68,473	-02
805157	RPL SOLER STACKS T	870327	13,325			25,193	-02
805161	CONST CONFERENCE RM 552 S	880319	35,603		5,879	43,279	-01
805163	FOUND 40K S VERT MILLS S	880415	113,362		6,321	117,383	-01
805164	ROOF TYP SAFETY RAIS	871326	22,792			22,792	
805165	ALT TO MINI MART 6 529	861330	20,591			20,591	
805166	RPRS T3 AIRCRAFT PARKING R	870320	255,903			256,903	-02
805168	INST TELEPHONE CAB-E	870318	113,653			110,653	-01
805170	PLATING SHOP DEMO 3 126 M	870315	26,753			26,753	
805173	REPL. COOLING TOWER G	880312	22,515		1,551	24,166	-01
805177	RPL WATER CHILLER 3-DG 390	870739	59,958			59,958	
805321	REM CARPET S INSTL 30V T	860410	13,281			10,753	-01
805344	INST 16M POWER BLOS 42 R	860327	13,281		13,281	26,562	-01
805363	Y451A FLAMABLE STORAGE U	861324	185,303		1,451	187,451	-02
805594	ROOM ALTERATIONS R-8A S	860416	17,635		530	18,235	-01
805516	REPAIR ROADWAYS C	860423	13,715			10,715	
805564	RPA OF ROADWAY S DRAINAGE	851321	30,797			30,797	
805570	BACK-UP ELEC PWR SJP	870321	23,255		363-	22,922	-04
805574	CARPET TILE B-4 A	851310	44,333			44,333	
805593	RENOV T3 RESTROOM 3-D 2/35	861328	41,223		1,570	42,843	-02
805719	INSTL DP FOLDING GATES	870328	22,222			22,222	
805723	NORTH SIDE TRANSFORMER	870132	23,833			20,983	
805727	WAREHOUSE CONVERSION B-4CE	870421	133,835			133,535	-02
805720	RPL 451-TON COOLING TOWER	861135	28,670		3,353	32,533	-01
805784	SECURE RAILINGS	861235	14,714		1,775	16,493	-02
805801	INSTAL DRDP DEILING B-36E	870311	109,303		1,450	110,450	-02
805904	REPLACE DOOR BLOS 112 M	870325	11,473		3,592	15,355	-01
805905	RENOV OFFICE SPACE 3M137 M	861112	357,503		5,479	362,979	-02
805907	FIRE DEFICIENCIES 3-17 L	880431	167,303			167,003	-03
805909	CONSTRUCT AREA BLOS 303 M	870313	194,157			194,157	-01
805910	REPLACE MAIN ENT DOOR	870328	23,387			23,387	
805921	CON LOADING DOCKS 3-DG. 7L	870311	44,807		9,749	54,756	-01
805922	NEW FUMIGATION FAC 3-405 L	870428	363,477		23,339	391,785	-04
805940	BITUMINOUS PAVING 3225 M	870330	25,103		62,452	87,552	-02
805941	TRANSFORMER REPLACEMENT P	870323	119,389		571	120,063	-02
805945	RENOV OFFICERS WLS	870139	74,527			74,527	
805946	REPAIRS TO ROOFS S	870328	25,103		9,898	34,998	-01
805949	REPAIR BOWLING ALLEY B	871223	19,585			19,585	
805954	REPAIR STORM WATER INLETS R	870137	25,103		49,345	74,445	-02
805956	RPR STRUCTURAL MEMBERS	870327	14,503		13,591	25,081	-01

PYDMDP.STAFF1.CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CHS EXTRACT FILE

RUN DATE: 07/05/88

DOLLAR RANGE OF AWARD (\$3000) K

49

PRC000C

PRC000C	DESCRIPTION	MOD	AJARD AMOUNT	MOD AMT CURPRI-AWARD	CJ3PRI	LAST MOD V
864572	FIRE SUPP. & ALARM INSTALM	80426	43,700		43,700	-01
864573	FIRE SUPP. & ALARM SYSTM	80431	33,824	5,558-	28,156	-02
864577	RPL 1300 KVA TRANSFORMER E	371207	33,978		38,978	-01
864576	FIRE SUPPRESSION	830127	43,479	3,370	46,849	-01
864582	INSTL TOWER PIPING	871113	19,597		19,597	-04
864583	FOUNDATION INSTALLATION S	680226	42,792	2,500	45,292	-01
864608	POWER CABLE REPAIRS	371218	10,320		10,320	-01
864836	WIRE MESH FENCE	870113	21,592		21,592	-02
864839	PERIMETER INSULATION	261120	14,300	500	14,800	-01
864863	RP - DOL-ER STACKS 30 24	871017	189,810	1,000	190,810	-01
864865	RPR INDUSTRIAL EQUIPMENT P	500923	100,000		100,000	-01
864865	PROF D4 SITE PREPARATION E	800703	19,000		19,000	-01
864867	RENOVATIONS TO OFFICES	870507	24,325	755	25,080	-01
864868	CODE 55A COMPUTER AREA M	870318	263,203	55,259	339,167	-03
864865	ALSO OFFICE SPACE 3-D4 12P	870209	172,511	1,237	173,748	-02
864866	PAVING/DRAINING GATE 324 S	861201	69,058	355	69,413	-01
864862	RPL PIPING & INSULATION K	870503	23,260		23,260	-03
864863	RP - COOLING TOWER SPRINKL	571020	65,351	5,397	70,748	-03
864863	INSTALLATION OF PEAC SHAVE	830129	45,138		45,138	-03
864866	DOIT/INSTALL STRIPPING G	870515	52,400		52,400	-03
864900	IMPROVEMENT & LANDSCAPING	861216	73,000		73,000	-01
864938	SERVICE ACCESS DOORS	571221	91,293		91,293	-03
865060	LADDER & STAIRS 303 15 G	871231	123,494	5,717	129,211	-02
865101	SAVITARY SEWER RPS 3 A-T M	870715	22,968	5,373	28,341	-02
865105	INSTL NEW ELECTRIC CABLE K	870502	159,420	290	160,110	-01
865110	INST POWER SYS 3 GEN 551 M	860528	13,493	5,474	18,967	-03
865111	EMERGENCY GENERATOR 3 324	830322	156,800	1,460-	158,260	-02
865116	RP - COMMUNITOP	870529	55,830		55,830	-07
865118	CLEANING OF ROOF ENGINE	861216	11,975		11,975	-03
865130	PAINT & RPR STATION GRS F	571017	23,750	5,393	29,143	-03
865131	MOD HVAC BLDG 149 3 204 M	870522	69,000		69,000	-03
865133	STRUCT & MASHD RPS 3 275	271113	75,867	3,332	79,199	-03
865136	PRECISION APPROACH PATH P	870206	53,500		53,500	-02
865140	RPR ROOF BLDG 145 S	271008	62,654		62,654	-02
865145	ALT & RPR STORM SEWERS B	870317	439,540	3,236	442,776	-03
865149	HVAC COMMISSARY	870422	101,125	11,514	112,639	-02
865151	FOJND KING BORING 41LL	871112	48,493		48,493	-02
865152	SU-FUMIC ACID COAT 3502 M	801223	13,590		13,590	-02
865153	ENTRANCE PLOD 123	871001	17,840		17,840	-02
865154	POWER TO VATS	870506	124,890	9,043	133,933	-02
		370407	14,465		14,465	-02

PVJMDP.STAFF1.CVT

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/80

DOL-AR RANGE OF AMWD (\$300) <

48

JF: 69JUN30

PRJCD0C

		DESCRIPTION	300	AMWD AMOUNT	CURPRI-AMWD	CURPRI	LAS MOD
803747		REFINISH DRILL HAL- DECK D	870228	14,800	590	15,690	-01
803749		PAINTING OF ADMINISTRATIVES	870315	63,000		63,000	-01
803765		RPRS OF TRANSFORMERS	870110	39,800	5,250-	33,550	-01
803770		REPAIR OF ROOFS	861201	63,500	2,422	65,922	-01
803772		INSTL OF SPRINKLER SYSTEM	870313	125,000	38,121-	86,879	-01
803773		REMOVA- OF ASBESTOS	870322	25,200		25,200	-01
803775		RP- OF ELECTRIC SERVICE	851210	19,262		19,262	-01
803777		REPLACE SJWOPCH WIN/DORA	830329	69,250		82,102	-01
803794		TELEPHONE INSTALLATION	861130	11,115	44	11,160	-01
803902		RPRS/ALTS BLDG C-8	871125	189,300	1,713	203,713	-01
803904		MAGAZINE ACCESS IMPROVMT	870224	193,250	1,522	194,872	-01
803906		RAILROAD RECONSTRUCTION	870312	1,068,545	39,288	1,107,933	-01
803939		REPLACE ROLLER BLDG. R-3	871122	149,315	3,782	158,097	-01
803942		REPRS. TO BLDG. C-9	830135	82,400	7,051	89,451	-01
803944		DEM0 D-265 C-47, S-5, 517L	870131	24,999	970-	24,009	-01
803946		CONST OF WARD HOUSE	870331	19,470	1,542	21,012	-01
803949		ALTS MAIN GATE CARLEA VJ A	871216	190,000	4,532	194,532	-01
803950		RPL OF ASRCC AREA CRANE	860329	32,032	1,943-	30,089	-01
803965		PERIMETER FENCING	830422	279,719		279,719	-01
803975		INSTL OF WERERING UNITS	870227	10,430		8,593	-01
803976		RPL OF MAGALINE DOORS, V G	871231	345,000	1,837-	346,000	-01
803993		BALLFIELD LIGHTING	870115	33,862		33,862	-01
804451		NEW COMP ROOM B - #712	861206	229,500	3,500-	226,000	-01
804464		REPAIRS & ALTERATIONS	880418	228,000	4,745	232,746	-01
804465		CONSTR PAINT SHOP STORAGE	870222	71,611	6,121	75,782	-01
804467		TEST GAS LINE	871217	34,957	5,285	41,242	-01
804470		COOLING TOWER	871232	43,770	15,435	64,205	-01
804471		ROOF NAIL STORAGE AREAS	861229	55,200		55,200	-01
804479		AIR CURTAIN INSTALLATION	850322	23,000	450	23,450	-01
804483		FAM HSG. - RPRS. QTRS. P	870314	51,130	199	51,319	-01
804485		INSTL OF FIRE & ALARM SYSD	871215	95,988	1,520	98,579	-01
804486		FIRE SUPPKE. & ALARM SYSTS	860301	93,000	3,747	96,747	-01
804494		FIRE & ALARM SYSTEM IMPR	870320	59,400		59,400	-01
804496		HEATED AIR CURTAIN INSTL P	871129	41,809		41,809	-01
804499		MADEPIAL STORAGE FACILITY	870321	57,311	7,727	65,038	-01
804500		DEM0 7 BLDGS	870321	309,611	55,530	365,141	-01
804507		FIRE ESCAPE STAIRS	871123	35,924		35,924	-01
804514		FIRE SUPPRESSION	871230	20,900	900	21,700	-01
804535		REPLACE WINDOWS BLDG. 736C	870321	10,123		10,123	-01
804562		FIRE SUPPRESSION	871128	12,900		12,900	-01
804569		FIRE SUPPRESS & ALARM SYSC	860318	53,580		58,580	-01

PJWJDF.STAFF1.CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BDD IS PAST AND ACTUAL
SOURCE: SMS EXTRACT FILE

47	RUN DATE:	37/05/83	DOLLAR RANGE OF AWARD (\$300) K	PROCDOC	DESCRIPTION	FOY	AWARD AMOUNT	MOD AMT CU3PRI-AWARD	CURPRI	LAST MOD V
803307	REPAIRS TO ROOF	M	162,937			370311	162,937	3,379	162,907	-03
803314	MOD PSYCHO ACOUSTIC RES. L	L	55,665			361125	55,665		65,345	
803315	INT & EXT PTG	V	25,155			870416	25,155		26,155	
803318	REPL. LIGHTING GENERATOR A	A	39,295			870519	39,295	5,339	44,335	-01
803321	RPR/ALFR HUMIDITY CONTROL	C	123,793			870324	123,793	13,111	141,201	-03
803335	REPAIRS TO JALLEY	H	18,603			661222	18,603	5,430	25,003	-02
803347	PKE HALVT AC 11CH CON 420		17,803			650324	17,803		17,803	
803350	AIR CONDITIONING REPAIRS C	C	69,493			870318	69,493	12,330	81,793	-05
803352	RPR HEAT EXCHANGE	S	255,843			890205	255,843	1,330	257,723	-03
803356	HTJ & A/C APRS BLDG. 450 C	C	49,783			830106	49,783	500-	49,183	-01
803373	RPR POWER CABLES VAULT 55E	C	13,503			660308	13,503	2,353	15,558	-02
803374	REPL. OF HEATING UNITS	C	83,493			870324	83,493		83,493	-02
803391	REPAIR FLOOR TILES	D	15,933			661105	15,933		15,933	-05
803396	RPR FEEDER	A	55,715			870315	55,715	30,289	87,306	-01
803399	RPR REFRACTORY	A	12,163			660319	12,163	7,234	19,402	-01
803408	RPR EXIT & EMERG. LTS	C	13,542			661322	13,542	9,230	22,642	-02
803409	SECURITY GATES & JOSTHS	C	279,803			850229	279,803	23,543	303,343	-02
803409	SECURITY BOOTH IMPROVEMTL	C	244,303			870318	244,303	13,332	257,532	-03
803424	REPAIR GLAZING	C	24,933			361212	24,933		24,933	-01
803443	ALTS RPRs BLDG 37	C	113,493			870327	113,493	1,757-	116,735	-03
803445	ALTS R4 115-1150	S	22,783			870311	22,783		22,783	-03
803447	STAGING AREA BLDG 77	C	187,816			870306	187,816	3,424-	186,393	-03
803449	HYBRID LAB	C	374,543			871127	374,543	23,773	403,315	-03
803450	INSTL BOILER BLDG 77	P	85,825			870329	85,825	534	86,359	-01
803452	UPGRADE ELEC DOORGE 204D	A	53,503			870312	53,503	659	58,359	-01
803459	RPR UTILITIES PIER 7	C	209,263			671316	209,263	12,762	222,322	-05
803469	PLUMNT EXISTING SEC FENCE	C	69,873			271316	69,873	21,313	90,883	-03
803470	EXT LTG IMPROVEMENT	D	156,293			870711	156,293	4,512	160,802	-02
803471	RPR FLR & WINDOWS 3-135	C	135,493			890128	135,493	10,330	145,493	-02
803474	RPR POOF B141	P	47,303			870226	47,303	20,732	67,732	-02
803476	RPR 3 ALT 3-1	D	24,753			861223	24,753		24,753	-01
803478	RPR PORCHES	C	14,303			871106	14,303		14,303	-01
803484	RPRs TO FLR TLS & STR TRDT	C	12,996			870331	12,996	1,420	14,416	-01
803652	RPRV. DEEP DRAFT CAMELS	C	124,303			670330	124,303	2,300-	122,303	-02
803697	RPR ROOFS 3-164	P	121,383			560227	121,383	4,770-	116,313	-01
803699	ALTS FOR A VET FACILITY	C	12,433			860730	12,433	1,350	13,783	-01
803706	REMA-L PARTITIONS	C	23,503			870319	23,503		23,503	
803707	INTERIOR PAINTING	P	55,699			860716	55,699	1,952	58,551	-01
803709	ALTS TO TYLUNAS HALL	C	17,503			670715	17,503		17,503	
803711	REPLACEMENT OF CONDENSER	C	21,993			650223	21,993	1,719	23,709	-01
803733	SECURITY IMPROVEMENTS	E	15,503			861331	15,503	1,730	17,203	-01

PVDMDF.STAFF1.CNTL

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RUN DATE: 37/05/83

DOLLAR RANGE OF AWARD (\$3000) K

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: C4S EXTRACT FILE

P: 38J JN30

PROCDOC

	DESCRIPTION	300	AWARD AMOUNT	MOD AMT CURPRI-AAAD	CURPRI	LAST MOD N.
802502	DWD A-L ALICE PROPERTIES	800322	51,663	2,420	54,083	-02
802503	BEST SYSTEM INSTL	800324	37,423	748	38,169	-02
802511	REPIPE HTG SYS BLDG 304	870113	61,293	23,359	85,162	-03
802512	PNT INT EXT VAR FLDS	870717	72,000		72,000	
802515	PNT INT VAR BLDG	860309	11,097		11,097	
802528	LIGHTING PROTECTION	830224	124,218	5,335-	119,383	-02
802531	RANGELEY GEN INSTA--	870320	17,403		19,403	-02
802532	RE-AMP BLDG 294	861213	47,343	137	47,947	-02
802536	STEAM PIT REPAIRS	830214	123,742	542-	123,100	-01
802539	COWYTH DEER FENCE	830214	43,193	13,199	58,392	-04
802542	ROAD CRACK SEALING	270711	135,865	3,526-	132,359	-02
802549	35 KV UPGRADE	870320	207,472	31,348	238,820	-04
802555	EMERGENCY GENERATOR	870320	23,300		23,300	-02
802567	LIGHTING IMPROVEMENTS	860311	31,725	2,375	34,101	-02
802574	REPAIRING PAVEMENTS	870313	17,102	15,756	33,865	-05
802578	PERIMETER SECURITY FENCE	870311	390,000	23,316	413,316	-05
802590	ENC LIGHT HSP 1,2,3, 5	870706	13,500		13,500	
802596	RPR TRANSIENT LV APP 3-3	870512	177,375	11,559	189,333	-07
802598	RPR EXT BLDG 3	870123	55,303	535	55,985	-04
802599	PAVING & SITE IMPROVEMENT	890116	184,265	3,335-	180,959	-05
802606	GROUNDING SYSTEM	890204	72,834		72,834	
802633	REPAIR EPDM ROOF 1,2,6 32	861212	38,953		38,953	
802635	ROOF RRS, SHINGLES	870529	67,000		67,000	
802636	FENCING	870120	44,893	238	45,128	-01
802638	RPR PAVEMENT BLDG 122	860727	15,853		16,353	
802640	RVA & TAXIWAY STRIPING	861229	38,122	300-	37,822	-01
802641	ROOF RRS MAGAZINE AREA	870508	15,185		15,185	
802643	ROOF RRS, VARIOUS BLDGS.	870715	69,911	2,913	72,824	-03
802644	RRS TO A/C CONCRETE PAVES	861223	77,934		77,934	
802646	AIR MAINTENANCE VANS	871106	129,993	24,587	153,577	-11
802647	PAINTING OF FAM HSG UNITS	860308	19,203		18,203	
802660	REPL. SHOWER STALLS	880330	17,823		17,823	
802909	INSTL TELECOMM. CABLE	860530	13,733	5,353	25,283	-01
802919	CONSTRUCT INCINERATORS	870422	69,803	255	70,365	-01
803004	PROV. SECURE ROOF 3,4,5,3	861125	13,253		13,253	
803010	INST'L ROOF	261231	45,767	300-	45,467	-01
803204	ROAD REPAIR	860111	15,085	15,335-	753	-01
803216	DISC CONTACT JACK UP	861103	17,642		19,642	
803233	VENTILATION SYSTEM	870217	13,503		13,503	
803236	ELECTRICAL OUTLETS 4, 11, 12	861226	12,799		12,798	
803304	OVERHAUL TURBINE GENER.	370318	803,000	123,110	923,110	-05

PVCMDF.STAFF1.CVTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

45	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$300) K	AWARD AMOUNT	MOD AMT CUPRI-AMWD	CUPRI	LAST MOD VJ
PRC000C	DESCRIPTION	BOC					
861590	RPR TO ELEC DIST-B-29	350318	464,000	63,322	532,322	-04	
861711	VENT-SEWAGE LIFT STATION C	570417	73,683	1,358	79,741	-01	
861712	RMV CONCP&RELOCATE LINE	561306	43,765	5,321	45,787	-01	
861719	CONSTRUCT TRUCK/RAIL OCKP	580419	65,000	2,971	105,971	-01	
861721	REPL CHILLER BLDG-370	671209	85,000	1,397	84,503	-02	
861722	RPR BREACHING-BOILER B-30M	661216	11,220		11,220	-01	
861725	NEW ROOF JITTERS 0.1601	970218	23,400		23,400	-01	
861726	2ND EXIT FROM BASEMENT C	561306	15,860		15,860	-01	
861732	EXT PAINTING FAMILY HSS. K	970317	184,340	5,592	190,722	-04	
861739	RPR NO. 162 ELEVATORS	971119	23,649		23,649	-01	
861740	TEL.SERV/EGPT-BLDG 151	370717	26,400		26,400	-01	
861744	MODIFY ASKCC-PITS-113	660525	13,750		10,750	-01	
861761	ACCESS FLOOR PANEL RPRS. L	661223	13,500	12,000	10,500	-01	
861764	RPRS C/H CRANES	670501	32,860		44,860	-02	
861775	REPLACE CHAIN LINK FENCE E	670225	25,888		26,888	-01	
861776	A/C TWO CLASSROOMS B-350	970703	32,240		32,240	-02	
861780	HAZ.WASTE STORAGE FAC. P	971210	181,800	4,067	185,867	-02	
861783	RE-ROOF NO PORCH QTRS. A B	860301	12,154		12,154	-01	
861786	PAVE PARKING AREA 3-603	661121	18,860		18,860	-01	
861788	TELEPHONE SYSTEMS 0407-2M	670501	101,308	221,908	323,216	-05	
861805	INSTAL. AIR COND. 3-112	970203	43,000	3,416	51,416	-01	
861809	TAPE STORAGE BLDG-107	670317	143,300	12,739	156,039	-02	
861811	BOILER REPAIRS BLDG-113	561204	25,890		28,890	-01	
861814	HVAC-PISTOL RANGE-3-440	560705	19,885		18,885	-01	
861815	NEW OFFICE AREA BLDG-1171	970121	17,340	323-	17,340	-01	
861823	REPL PRIVACY FENCES HSS. P	670213	78,000	132	77,677	-01	
861829	REPAIR CARPORTS	670128	41,463		41,545	-01	
861832	ALTS RDIC OFFICE 3-DG. G	661203	22,350		22,350	-01	
861844	REMOVE COLLINATION TOWER	971202	26,500		26,500	-01	
861845	TOILET RENOV.-BLDG-102	930115	65,550	2,308	70,958	-01	
862102	LADY RESTRM BLDG. 20-235	671210	59,500	5,533	65,033	-04	
862106	RPL. PJAPS W DD #3	670314	133,000		133,000	-03	
862108	STRJ RPRS BERTH 11	661324	283,455	1,580	270,136	-03	
862109	RPR/INS ROOF BLDG-137-235P	571101	92,437	71,573	162,110	-05	
862114	NETWORK XPR REPLACEMENT C	650301	260,597	333	261,530	-02	
862116	BOILER/TURBINE MAINT/RPR H	690531	974,739	35,052	1,010,841	-06	
862121	GEAR RENTL-FACILITY	671214	105,532	5,536-	99,003	-02	
862123	REAR APN SIDING NOSE DOCKT	971211	2,697,000	145,339	2,843,388	-15	
862303	RPRS TO OVERHEAD CDRS	670112	24,240		24,240	-01	
862361	REPAIR TO TURBINE	830409	143,755	1,012-	139,743	-07	
862500	DEM'D BLDG 15 AND B-DG 23AC	560910	192,583	3,868	203,523	-03	

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43 RUN DATE: 07/05/38

F: 88JMN3U

PROCDOC

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BDD IS PAST AND ACTUAL-
SOURCE: CMS EXTRACT FILE

DOLAR RANGE OF AWARD (\$300) K

DESCRIPTION

900

AWARD
AMOUNT

MOD AMT
CURPRI-AWARD

CURPRI

LAST
MOD V:

859512	REMOVE ASD INS. A/C 5-150C	861229	129,983	25,244	155,227	-32
859517	CARD READERS	860117	24,985		24,985	-32
859518	INCINERATOR BLDG	860306	81,993	245-	81,745	-32
859519	STONE WALL REM/LNUSCPJ	860203	24,953		24,953	-32
859521	DOMESTIC HOT WATER, H.30 T	860729	87,203		87,203	-32
859523	PARKING AREA, 9.4x7	851127	19,525		19,525	-31
859524	MODIFY WATER SYS, 3.15	860708	23,616	4,304	27,919	-33
859527	UNDERGRND FUEL TANK M1	860205	14,803		15,303	-32
859528	NEW DUCT PAVES	951119	12,419	1,000	16,395	-33
859532	PAD HTR TANK, 5.179	951125	15,920	4,477	15,920	-31
859538	A/C DUCT 5.167	851218	11,403		11,403	-31
859553	REVISION FOR PIPING SYS	870126	197,511	557	199,078	-33
859558	AMBULANCE ENTRANCE 3.1	870328	101,350	13,138	116,339	-33
859599	OXFORD AVE ENTRANCE	860411	17,203	530	17,839	-31
859782	RR SIGNALS	861121	103,945		108,945	-31
859786	FAM HSS-- ADDL PARKING	870701	11,983	2,745	14,733	-31
863304	INSTALL ADD'L ESA'S	870314	109,203	1,153	122,363	-33
863310	VEHICLE MAINTENANCE SHOP	871218	1,005,003	91,514	1,097,514	-37
863022	NAVY LODGE FACILITY	870230	2,695,003	65,165	2,762,165	-31
863041	WATER DISTRIBUTION SYSTEM	870710	133,003	1,916-	131,084	-31
863042	STATION DRAINAGE	871308	193,503	3,781-	194,719	-33
863043	TEMP LODGING FACILITY	870204	3,083,000	27,185-	3,115,185	-35
863052	COMPL OF DEFULT CONTRACH	870515	223,503	1,793-	221,713	-34
863060	HOT WE-L & PUMP HOUSE	870904	464,049	7,570-	471,619	-35
863061	REPAIR AIRCRAFT RAMP AREA	870208	2,934,577	87,751	3,022,329	-07
863096	RPS/A-15 SENECA LAKE DETM	871311	214,127	1,225	215,352	-34
863102	TORPEDO MK340CAP -IFE CYM	860510	2,030,567	35,539	2,067,205	-33
863297	UEPH UPGRADE/ATC CRT LAKER	830129	2,177,249	73,904	2,249,153	-39
863298	FIRE A-ARM SYSTEM	871116	53,343	13,535	102,475	-35
863307	RPS STATION FUEL PIER	871209	355,203		355,203	-35
863314	PLAYGROUND AREA	830508	47,643		47,643	-35
863400	MOD BOILER RM TRNG STRCTA	870201	144,263		144,263	-32
863402	RECREATION FAC EXPANSION	870424	193,433	3,203	195,503	-31
863409	RPS STA PERIM FENCE (P452E	830428	73,703		73,703	-31
863414	RPS TO FOOD PREP AREA	870721	101,333		101,333	-31
863415	REMOVE REPLACE ATNDMS INC	860531	232,003	2,828	234,829	-32
863416	ALT EDF VENT SYS, 3-1.3	870530	114,097	4,530-	109,467	-32
863418	REMOVE ASBESTOS SIDING 40C	870429	223,503	7,387	230,887	-34
863419	REPLACE TRANSFORMERS	870327	95,939		95,939	-31
863422	RPS TREESTLE 2	860307	57,703	3,254	60,954	-31
863425		871230	944,714		944,714	-34

PVNDJF,STAFFI,CVT-

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 30D IS PAST AND ACTUAL-
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/83

46

05 NR 199 :

DESCRIPTION

CO2

AWARD
AMOUNT

400 AMT
CURPRI-ADARD

CJSPRI

LAST
MOD V2

863430	Y379/FIRE/SMOKE DETECTOR	270126	18,374	-01	18,374
863431	REPAIR STAM AND CONDENSE	371031	178,000	-03	174,329
863430	RPR DAMAGE COMT TRAINER	870713	13,444		13,444
863440	INSTAL-HEAT PLANT	271123	13,500		13,500
863445	FIRE EJACS ALARM SYSTEM	870831	23,580	-01	24,725
863444	RPLC RJCIF-440CAR 175	071231	135,550	-01	136,550
863469	RENOVATIONS TO OFFICE	890424	59,100		59,100
863500	WI--OW GROVE ROOF REPAIR	871223	139,715	-01	66,450
863502	ALT TO ENLISTED MESS CHENP	870508	139,715	-02	147,792
863520	RPR COM OFFICERS MESS	591331	691,257	-03	750,591
863544	DEMOLISH BUILDINGS	071015	39,999	-01	39,500
863500	NAVIGAR FACILITIES B-1	870317	74,850	-03	78,425
863502	CAR AIR COND-AMTG.	870316	37,493		37,493
863606	ALTERATIONS BLDG-143	691030	24,000	-02	24,000
863609	INT. & EXT. PAINTING	870501	25,000	-01	81,144
863612	RPR ROOF, BLDG-38	360312	195,080	-03	189,050
863616	BASEMENT RENOV-BLDG-679	870708	304,864	-04	323,953
863616	ROOF REPLACEMENT B-76	961114	21,210		21,210
863627	REPL-TWO ATTL'S-B-335	870224	42,522	-02	44,385
863629	REPL-PIPEING P-48	870113	20,300	-01	23,025
863630	ACOUSTIC DEADING B-1171	870129	39,565		39,565
863630	ROOF REPL. BLDG. 03	870922	165,000	-01	165,000
863638	CHLORINATION STA. -AKTCH	870917	54,490	-02	6,475
863642	REPL-PIPEING, B-A5 & 44	871211	385,516	-02	58,765
863643	ROOF REPL-B-441,442,463	870720	158,831	-05	465,215
863644	REPL-W2 COMPRESSOR 3-1154	870601	22,475	-01	160,540
863645	PHYS MDOS TO BLDG-317	870205	19,945	-01	22,475
863645	VENT-CONST-446	861033	22,000	-03	22,000
863649	REPL-COND. PIPE, C-2	960328	123,000	-03	145,309
863650	CONNECT BLDGS-1176&147	870518	225,895	-03	233,735
863652	RPRS-CARPOT ROOFS-AELF D	861008	20,850		20,850
863652	COMPUTER RM-A/CR-991	870306	13,747	-02	18,513
863658	REPL-EXHAUST FANS-3-292	870320	68,300	-02	68,300
863660	VENTILATION, BLDG. 440	870710	25,983	-02	27,297
863664	WINDOW REPL. BLDG. 1-A	870127	12,069	-03	11,741
863665	GUTTER-MASONRY RPRS-3-1172P	871222	57,000		57,000
863670	CANOEY-3-197-VEST-7-144	870717	49,475	-01	49,475
863671	VINYL WALLCOVERING 3-442M	871022	24,849	-01	29,377
863675	WEATHERPROOF EX-3-428&43L	871116	167,000	-01	173,904
863680	RPRS TO OVERHEAD DOORS	870512	162,680	-03	165,062
863688	RPRS VEHICLE-LIFT, 3-0	891025	69,283	-02	97,452

PVDMDF.STAFF1.CNTL

42 RUN DATE: 07/05/63

42
: 08JUN30

PRJCD002

DOLLAR RANGE OF AWARD (\$200) K

PRICEDOC	DESCRIPTION	BOQ	AWARD AMOUNT	MOD AMT CURPRI-ADARD	CURPRI	LAST MOD VLS
857650	CONDENSATE LINE	561310	147,797		147,797	
857650	RPRS TO LEAV-TO BLDG 1400M	271132	201,583	3,027	204,515	-05
857656	STORM SEWER REPAIR 400'	871223	291,599	35,358	329,467	-01
857660	REPAIRS TO BLDG. W/D	830429	371,880	14,433	386,283	-02
857665	CON IMPRVP MEMBRANE	660923	64,602	3,422	68,324	-04
857674	REPL EXHAUSTOR TUBES	250228	55,837	53,013	108,950	-04
857693	INSTAL SMLS W/250' P/AS 115	250130	213,203	15,488	225,989	-01
857690	REPL SIDING NRC	860434	24,967		27,383	-01
857691	PAINT/ROOF REPAIR	951137	48,704	2,415	48,704	-01
857692	SEAL PARKING LOT	880127	24,903		24,903	-06
857693	MOD. STEAM DISTRIBUTION	871218	171,654	17,718	189,372	-06
857694	RELOC PRV STATION 250' IIN	870921	240,000		240,000	-02
857695	UPGRADE ELECTRIC	261111	165,903	31,554	178,564	-05
857696	STEAM DISTRIBUTION SYSTEM	870430	197,353	11,791	209,174	-05
857697	ALUMINUM SIDING BLDG. #453	660523	57,333		57,833	-05
857698	ALUM SIDING BLDG. #10	660523	189,975		189,975	-05
857699	REPLACE GARAGES	451125	24,611		24,611	-01
857700	GLAZED CAPTAIN AAL- P-245	250934	13,403		13,403	-02
857701	CONSTRUCT BATHHOUSE	601312	115,985	3,074	118,959	-02
857702	RPRS TO SNOW BLDG	850912	23,361	15,327	36,588	-02
857703	INST GOVT FURN GENERATOR V	851126	29,294	353	33,347	-01
857704	INSTALL GOVT GENERATOR #20	851128	21,500		21,500	-01
857705	ROOF R-20 B-1	550319	27,903		27,903	-01
857706	REPLACE ROOF #45	851136	21,082	980	22,062	-01
857707	AGRESTOS REN	861334	31,003	73,000	103,003	-05
857708	MISC INSULATION INSTAL	870135	33,003	50,000	83,003	-03
857709	INSTAL- A/C UNIT	850832	11,803		11,803	-03
857710	NEW ALUMINUM DOORS	351330	12,303		12,303	-03
857711	REPAIRING OF QUARTERS	861315	73,503	32,519	111,119	-07
857712	EDASRE INST BLDG 3	860527	127,190	741	127,931	-02
857713	HOLLOW METAL DOORS	870336	19,803		19,803	-02
857714	OUTPATIENT PARKING LOT	851221	49,413	5,565	55,375	-03
857715	PARKING LOT	860132	22,999		22,999	-01
857716	INSTAL TWO FIRE STANDPIPE	950519	14,545		14,545	-02
857717	MECHANICAL/WATER LIFT #11	870210	49,433		49,433	-03
857718	INSTAL- A/C B-105A	270310	46,732	321	47,053	-01
857719	REV. FOR A/C B-130	661113	89,493	917	90,410	-01
857720	NEW OVERHEAD DOORS #119	870232	13,923		13,923	-06
857721	CONF. RM. & LOCK-UP #1170	870514	73,493	5,535	84,328	-06
857722	REVISE DISPLAY LAB	251310	83,953	2,659	91,509	-02

PV3MDP, STAFF1, CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE JDD IS PAST AND ACTUAL-
SOURCE: CMS EXTRACT FILE

41 RUN DATE: 07/05/63

PRCDDC:
: 68JUN30

DOLLAR RANGE OF AWARD (\$3000) K

PRCDDC	DESCRIPTION	JDD	AWARD AMOUNT	CURPRI-AWARD	MOD AMT	CURPRI	LAST MOD NB
857196	RPR CONCRETE	S	53,791		5,834	53,791	-02
857200	SEC AD TO JUTER PERIM	J	57,555		1,037	64,489	-02
857220	CONSTRUCT ARIES II	U	135,344		25,256	136,431	-05
857275	8-1000 RPR CEILING-GHTS	J	65,153		4,374	91,409	-04
857290	CONSTR TEST & STOR BLDG	P	174,400			179,774	-01
857372	RE-ROOF BLDG. #2	L	24,270			32,970	-02
857381	PAINTING OF WATER TANK	P	32,970			71,533	-01
857390	ALUMINUM SIDING BLDG. #3L	R	420,610	14,358		434,668	-02
857701	WHERRY APARTMENT 14PS	U	145,690	2,822		148,722	-01
857702	INCINERATOR RPL 83-4	K	79,697			79,697	-01
857705	ROSE REPL BLDG #1123	J	279,450	17,791		297,231	-02
857708	REPLACE TRANSFORMER	W	58,100			58,100	-01
857712	ADDT'S & MODS TO VACUUM	D	109,177	523-		109,177	-02
857719	REPLACE 4 AIR HAND-ERS	I	182,222	1,538-		180,584	-01
857726	RELACE STEAM & COND	P	415,000	7,936-		407,064	-01
857728	FAMILY HOUSING	D	165,700	41,038		207,738	-05
857729	REDOOF BLDG 301 OLATHE	G	12,554	5,828		12,554	-05
857731	DEMO F. JUDIZED 301-ER	V	339,300	5,592		345,129	-01
857732	FIRE HYDRANT INSTA--ATION	S	22,013			35,710	-01
857735	DEMO SEWAGE DIGGER	S	109,000			109,000	-01
857738	REPLACE AIR COMPRESSOR	A	91,585			91,585	-05
857740	DEMO D-65 AND VACCJ-ATOR	S	174,000			174,000	-04
857796	DEMO BLDG 223-VTC	G	77,800	546		78,346	-03
857802	REPL FEEDWATER CONTROLS	D	138,900	5,755		144,655	-03
857807	MISSILE PAD SITE PREP	K	347,045	29,900		377,445	-03
857816	REPL. OF EXT. WINDOWS	N	345,000	22,241		367,241	-03
857817	REPL. OF FLOOR TILE	J	69,248			68,248	-01
857819	CONDUCTIVITY REPL. 301-ER	R	43,473	17,500-		43,473	-01
857821	ROOF RPR-MCRC, MADISON	R	136,300	5,724-		119,500	-01
857822	REPAIR SANITARY SEWERS	Y	44,350			40,525	-01
857824	ROOF REPLACEMENT	L	62,330			62,330	-02
857825	DEMO ASH SILO BLDG 3511	N	15,850			15,850	-02
857826	DEMOLISH COAL SILO, U-11	M	35,800			35,800	-02
857829	FLAMAS--E STOPAGE	K	195,248	2,252		197,500	-03
857834	DAMAGE CONTROL TRAINER	F	134,444	1,485		135,229	-04
857835	DAMAGE TRAIWER	F	135,019	350		136,569	-05
857836	DAMAGE CONTROL TRAINER	F	129,304	6,751		134,255	-05
857844	APR BRVUSON AVENUE	K	97,463			97,463	-04
857845	REPAIR PARKING LOT	M	163,970			163,970	-04
857846	REPL OF HIGH LIFT PUMP	D	63,900	1,312-		67,483	-04

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

39	RUN DATE:	37/05/86	DOLLAR RANGE OF AWARD (\$300) K	AWARD AMOUNT	CURPRI-AWARD	CURPRI	LAST MOD VBR
58JUN30	PROCDOC:	DESCRIPTION	900				
855169		SPILL CONTAINMENT P-ANT 2S	851331	27,071	5,982	33,053	-03
855174		CONSTRUCT NEW PAVEMENTS R	630411	94,431	200-	94,431	-01
855179		RPRS TO FIRST FLR WINDWSS	570422	61,433		61,433	-01
855180		PINEHURST HEATING G	33,433	33,433	2,117	40,547	-03
85524		RPL OF GAS TANKS & PUMPS F	603120	95,554	5,533	101,866	-02
85532		PLATFORM RAILINGS U	601212	44,003		44,003	-02
85535		DENTAL CLINIC RENOV N	60315	26,591	16,832	41,583	-04
85536		RENOV TO OFFICE/LOCKER RMH	60316	57,993	4,253	62,253	-03
85547		DEMOLISH INCINERATOR M	651331	77,587	5,732	84,419	-02
85567		WAREHOUSE CONVERSION 6-42C	60271	152,845	34,737	187,572	-04
85573		RENOVATIONS TO BLDG #3 D	870117	193,003	4,132	197,192	-03
85574		ROOF RPL BLDG #12 D	851211	79,802	11,333	90,902	-01
85579		EXEC WING REMAB M	801110	23,884	4,257	28,171	-02
85591		CONNECTIONS 3- 2, 3, & 5 M	851226	17,403		17,403	-02
85594		RPR RR TRACKS Y	60313	263,339		263,389	-01
85595		REPAIR RAILROAD A	871326	355,413	111,533	467,343	-05
85596		RPRS TO TOILET FACI-ITTEST	60732	199,111	5,353	204,171	-04
85598		CONSTRUCT OFFICE T	851230	15,781		16,781	-01
855910		ALTS ENTRANCEWAY 8-409 T	60428	26,003		26,003	-02
855916		LIGHT RPRS 3-135/211/212 S	851227	109,335		109,335	-01
855920		INSTALL PEIN CONCRETE S	60113	55,982		63,263	-02
855920		RAILROAD TRACK MAINT B	851127	85,383		97,315	-01
855929		CONST NEW TOILET 9-407 L	870918	73,243		73,243	-03
855930		RPR STREET CROSSINGS Y	861314	262,773	3,911	266,584	-03
855933		EMERGENCY GENERATOR P	60515	29,777		29,777	-01
855936		RPL ROOF 8-311R AND 311C S	851239	74,573	73,755	148,328	-01
855937		ROOF RPRS 3-503/503D A	861113	97,953	3,141-	92,809	-03
855939		FIRE DEPT CONNECTIONS A	960228	97,603	3,529-	94,071	-02
855943		Y955A EYEWASH AND SHOWER H	86071	42,424	1,938	44,362	-02
855944		RPRS TO FAULT DAMAGED EQU	851218	13,565	331	10,396	-01
855949		DOCK LEVELER & RAMP 2-12 R	860221	11,987		11,987	-01
855951		REPR RDRS 2RS 8-1/8 I H	860717	65,302		65,302	-01
855952		DEMO F-DOULIGHT TWAS H	860139	12,983		12,983	-01
855954		CONST RESTROOM FACI-ITTEST	60431	119,557		119,557	-02
855958		INSTALL - FIRE ALARM C	601315	16,363		14,363	-01
855960		CONSTRUCT SALT STORAGE H	605037	109,503	1,258	110,768	-04
855965		CONSTRUCT RAMP N	870513	22,733		22,753	-01
855966		REP - P-ATFORM RAMP M	601239	36,953	273	35,223	-03
855967		RELOCATE TRANSPORTER I	970112	19,853		19,853	-01
855971		CRANE TEST PAD H	871116	72,453		79,453	-01
855972		PAVE PARKING LOT H	605335	32,347		32,347	-01

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

38	RUN DATE:	37/05/86	DOLAR RANGE OF AWARD (\$300) K	300	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD V
PRCDDOC	DESCRIPTION							
854704	REPR AIRFLD CONCR SURFC G	651115	319,920	23,582	343,502	-03		
854712	CNSTR 222-FAL MTL STR 3-GH	851218	113,000	292-	112,709	-02		
854717	CUN INFR/LASER LAU	251201	238,000	47,475-	190,525	-05		
854721	REPAIR EXTERIOR WALLS	571209	212,473		212,473	-01		
854725	REPAIR SAWTOOTH ROOFS, 1-2G	861219	522,000		522,000	-02		
854726	REPAIR PROJECT 420-33 F	660324	214,310		214,310	-01		
854730	FENCING AND STANDS C	351220	14,446		14,446	-05		
854735	RPR PLATFORM SHED, BLD 1 R	070410	67,000	1,540-	65,460	-01		
854736	REPAIR PAVING ZONE 2	051125	266,123		266,123	-01		
854739	REPLACE SUBSTAT J, 3.5 P	661211	172,727	7,006	179,783	-01		
854747	REPLACE RUOF BLDG 1	660320	127,753	5,000	133,753	-01		
854746	REPLAC WIND WALL B-DG 25 A	660324	135,000	937	135,987	-01		
854750	CONSTRUCTION AWARD	660310	95,748		95,748	-01		
854756	INSTL LEADER VALVE K	660717	28,206	780	28,986	-01		
854757	CENTRIFFUGLE RENOVATIONS N	671201	85,345	7,241	94,286	-05		
854766	TACAMO OFFICES, BLDG 1 R	561212	165,111		165,111	-02		
854770	ALTERATIONS TO BLDG. #3 R	861212	189,319	4,338	193,707	-04		
254772	MAGAZINE CONSTRUCTION K	860309	247,245	450-	247,695	-04		
854776	REPAIRS TO RUNWAYS	871214	558,500		558,500	-01		
855103	RPR INDN FILTERS B-DG 352C	660317	88,863	5,486	95,349	-01		
855104	RUOF RPRS BLDG 355	861228	26,997	15,400	40,297	-03		
355107	INSTL OF WALK-IN COOLTH S	580129	88,097	19,573	107,767	-07		
855109	RPR STORM SEWER SYSTEM R	650710	160,000	3,238	163,289	-02		
855110	PAINT AIRFIELD MARKINGS L	660314	41,025	3,744-	37,282	-02		
855120	INSTL OF FUEL OIL 35HERSP	661110	107,860		107,860	-02		
555124	FIRE MAT REPAIRS	860131	23,500	1,540	25,140	-04		
855125	TEST RUNWAY CONCPETE RPR D	660124	19,200	17,919	37,119	-02		
855133	INSTL FT FIRE ALARM SYS C	650523	10,270		10,270	-02		
855134	SECONDARY CONTAINMENT V	851216	11,352	1,050	12,402	-04		
855136	MASONRY RPRS TO BLDG 450	860328	35,985	5,207-	29,778	-04		
855141	MASONRY RPRS TO BLDG 150 B	860326	42,000	2,212	44,212	-05		
855147	CONSTRUCT EQUIPMENT MAINTS	661222	53,889	2,261	56,150	-02		
855146	CONSTRUCT RUNWAY MARKERS	660318	43,989	5,337	49,296	-01		
855152	REM EXISTING ENTRY DOOR V	650525	12,995	1,400	14,395	-02		
855153	MISC VENTILATION PROJECTSR	870310	92,200		92,200	-01		
855154	MISC VENT SYS BLDG 148 C	870323	23,688		23,688	-01		
855157	RPR OF LEAN-TO-ROOF	860315	47,700		47,700	-02		
855160	PLYMOUTH EMBURY COMMS. R	860324	52,980		52,980	-01		
855161	RPRS TO 8-SIDED PORCHES T	851210	20,035	2,500	22,535	-01		
855164	MASONRY RPRS TO BLDG. #39	660317	17,500		17,500	-01		
855167	UTIL. TO RELIGIOUS CENTERP	570525	71,665	1,145	72,810	-03		

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CWS EXTRACT FILE

RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$300) K				
36						
JJN10						
00000						
	DESCRIPTION	BOD	AWARD AMOUNT	CURPRI-AMT	CURPRI	LAST MOD NBR
3384	REPLACE AIR CONDITIONING C	870524	112,493	12,754	130,247	-04
3385	RPR & REPL. BUS	871214	50,520	9,144	58,664	-03
3386	AC BLDG 135	890512	154,553	27,148	181,701	-03
3389	PAGING SYS BLDG 29	850301	17,500	500	18,000	-01
3390	RPR BOILERS BLDG 609	851105	24,390	970-	23,420	-01
3392	FLOW MEASURING SYS	860202	24,847		24,847	
3394	WINDOW REPLACEMENT 3.80	860330	63,500	1,359	69,769	-02
3395	1ST FLR RPR BLDG 41	860508	71,435	14,633	85,633	-04
3396	SYSTEMS LAB BLDG 80	860915	55,574	1,485	58,159	-02
3397	INSTFL-W PRCC EQUIP	860524	14,500	113-	14,487	-01
3398	MOD TO VENTLN SYS 396	860226	15,340		16,340	
3399	RPRS TO STEAM DIST. SYS	871124	193,000	20,700	213,700	-02
3400	INST SOLAR HOT WATER SYS	860226	43,280	1,122	44,402	-03
3401	UNDERGROUND TNC EXCAV	850722	21,454	2,273-	19,181	-01
3402	LITHIUM BATTERY	870201	29,890	500	30,390	-01
3403	PROVIDE SHALLOW DRAFT	860527	12,139		12,139	
3404	STORM DAMAGE/FAN HOUSING N	851320	25,000		25,000	
3405	RPR PIER FEWDER SYSTEM R	870324	95,304		96,304	
3406	REPL OF DRS & FRAMES, 300V	850105	37,314		37,314	
3407	INSTL HOT WATER HEATER L	851217	16,540	721	17,261	-02
3408	RPR & ALTS BLDG #1	851213	12,180	500	12,680	-01
3409	INSTL OF VEHICLE GATES	860301	13,750		13,750	
3410	INSTL BRAD POOTH, WAS	860301	13,500		13,500	
3411	SECURITY FENCE IMPROV. D	860101	13,750		13,750	
3412	SECURITY FENCE REPRS. D	890201	19,950		19,950	
3413	4TH FLR ALT. & RPR NRC P	850518	148,000	9,200	157,200	-01
3414	ROOF & WALL REPAIRS	861330	39,900		39,900	
3415	REACTIVATE HEATING SYSTEM	870119	223,220		223,220	
3416	PAINTING/EXTERIOR REPAIRS	851122	84,840		84,840	
3417	RPL OF CHIMNEY & LIVING W	851217	17,000	4,790	21,790	-01
3418	RPRS TO 1ST FLR B-RS G	860212	53,000	22,500	75,500	-01
3419	ALTS FOR VET INSP OFFICE R	860227	13,000	435	13,435	-02
3420	EXT REPAIRS & PAINTING A	851115	32,000	2,400	34,400	-01
3421	RPR SWIMMING POOL FAC 571	850507	15,317	3,100	18,417	-01
3422	DEMO B-GS R427, R428, 315G	851125	73,469		78,469	
3423	REPLACEMENT OF DRS BEU T	860115	11,990	10,171	22,161	-01
3424	MOTOR OPERATED HOIST S45P	851230	35,922		35,922	
3425	RAILROAD MAINTENANCE	861221	454,767	235,339	691,106	-05
3426	REPL OF PR TRACK SCALE R	850407	99,215		99,215	
3427	REPL OF MAGAZINE DRS IV G	860916	305,300	999-	305,300	-01
3428	ROOF REPAIR TO BLDGS C-29P	860123	39,700		39,700	

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 320 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

35	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$3000) K	PRCDDOC	DESCRIPTION	BOJ	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD VPR
852803					FENCING AT VAR LOCATIONS T	870427	11,223		11,223	
852811					RPRS TO FEEDER NO. 3	860121	33,723	3,550	42,573	-02
852812					CLCAR TREES R/W 17-35 S	860210	106,503		106,503	
852902					INTERIOR PAINTING A	851215	13,275		13,275	
852906					REPLACE BOILER 9 #35 E	851322	23,275		23,275	
852920					HRI-85, HJUSING REPAIR A	860330	24,243		24,243	-01
852925					PARKING LOT EXTENSION M	860334	27,523		27,523	
853003					REZONE HEAT, BLDG. 500 P	850329	23,911	930	24,711	-01
853009					RPR ROOF POWER PLANT R	851115	47,323		47,323	
853011					REPLACE FUEL LINE COVERS C	650123	24,303	435	25,235	-01
853018					CONCRETE SLAB BLDG. 517 M	851122	15,599	353	17,049	-01
853213					BOILER REPLACEMENT S	860316	52,503	479	52,979	-01
853216					PAINT FACILITY EXTERIOR A	870321	14,203		14,203	
853289					PARKING AREA LIGHTS B	860131	13,469	593	19,159	-02
853290					MASONRY & ALUMINUM REPAIRS N	870316	32,033	1,651	33,766	-03
853301					REPAIRS TO WAREHOUSE S	830338	355,503	20,418	377,218	-04
853306					SITE PREP BLDG 427 L	870414	133,003	3,437	141,407	-03
853308					UPGRADE ATMOSPHERIC COVTRC	871130	84,783		84,783	-02
853311					RPR PIPE & DUCT N	860331	44,003		44,003	
853315					RPRS BOILER #1 BLDG 29 A	860715	44,369	13,355	57,424	-03
853318					RPRS STACKS	861110	453,834	2,233	461,147	-01
853320					RPR ELEC DIST SYS 3-DG 87D	851110	15,213	2,159	18,387	-01
853325					RPR FEEDER AT NSB C	850338	10,395		10,395	
853328					CONSTRUCT SEC FENCE A	851123	13,677		13,677	
853331					RPR DUCT D	860330	64,021	22,543	64,021	-02
853332					RPL AIR COMPRESSORS C	830334	645,225	1,231	667,869	-02
853333					RPRS AC 8445	860331	134,693		135,784	-01
853335					RPL TURBINE G	850320	15,953		16,283	-01
853336					REM OF EXISTING ASBESTOS A	860334	18,263	1,313	20,173	-03
853354					RPR ROOF BLDG 427 D	860338	85,333	17,713	102,713	-02
853355					ADD N TO BLDG. 95 L	871132	133,335	25,337	156,932	-08
853361					REPR BOILERS/OTR O THPJ UH	851126	53,503		58,503	
853366					ALTS & RPRS TOILETS H135 P	851212	21,947	2,330	24,747	-02
853369					PROVIDE DEEP DRAFT CAMELSW	660331	334,883		334,883	
853371					FLUE DAMPERS S	851131	12,993	35,375	12,993	-03
853372					RPR AC BLDG 427 C	561139	117,732	35,312-	153,107	-01
853379					REPAIRS TO ROOFS P	870334	244,503		209,199	-01
853380					DOOR/INSTALL PREVENTERS A	870332	52,359		52,359	-03
853381					ELEC & VENT MODS VAR B-DGD	870330	157,239	2,938	160,147	-03
853382					RPRS TO PIERS MECH. SYS. G	990422	185,354	32,440	217,794	-02
853383					RPR MECHANICAL SYSTEMS H	870338	66,803	2,833	69,603	-03

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

34	RUN DATE:	37/05/83	DOL-AP RANGE OF AWARD (\$3000) K	300	AWARD AMOUNT	CURPRI-AMOUNT	CURPRI	LAST MOD YBR
8JUN30	PRCDDOC	DESCRIPTION						
851907		BLDG 22 COMP ROOM	S	650523	149,665	1,835-	147,831	-10
851923		REPL STEAM FEEDING 314	M	660931	64,343	41,175	105,524	-07
851934		LOK STORAGE BLDG. 172		670750	24,495		24,495	
851941		RPR/RP - FIRE ALARM SYSTEM		600215	12,865		12,865	
851942		ALTS TO EN CLUB PORTSMOUTH		670310	77,254		77,254	
851944		PICNIC PAVILLION	J	650733	39,995		39,995	
851947		B. H-1 COMPUTER ROOM	J	850413	154,553		162,493	
851951		REPLACE OVERHEAD DOORS	P	870235	33,153		33,153	
851952		DD2 INSTALL TEST POWER	J	860733	62,747		70,747	
851954		B. 301 RAG BALL CRT VENT		860539	14,328		14,328	
851957		RP - HOT H23STEAM -INES	N	871125	783,474	10,455	793,939	
851960		TRAFFIC DIRECT SIGN		550329	21,503	431	22,031	
851961		SLATE ROOF REPAIRS	P	851122	17,985		17,985	
851963		POWER PLANT REPAIRS B.72 S	S	890431	779,603		779,603	
851969		HYDRANT REPLACEMENT	B	661137	65,003	2,124	68,124	
851971		RP. COND TANK/PUMP/PIPE		870918	94,772		94,772	
851972		RENOV OF BLDG #130	S	660539	73,443	14,717	88,157	
852026		RPRS. TO AIR CONDITIONING		560531	11,733	2,563	14,293	
852108		BLDG. 178 BIRD CONTROL	D	851212	22,325	18,735-	3,519	
852196		PRO. RPRS TO HI-RANGER		861310	19,729		19,729	
852206		B. 4-1 VINYL FLOORING	G	660214	17,553		17,553	
852506		INSTAL. BACKFLOW DEVICES	P	861121	175,165		194,731	
852515		INSTL OF NALCOMIS NETWORK		860513	1,114,217	19,566	1,140,833	
852520		MARQUE REP & EXT PNT	M	660921	20,503	1,725	22,225	
852522		35KV SWITCHING STATION	A	860537	221,757	1,437-	220,363	
852523		CLEAN & INSP SEWER -INE	A	651230	85,255	52,131	137,385	
852524		DEM OF WEATHER TOWER	M	850320	27,303		27,303	
852530		GLASS REPL AUM GUARD	C	651221	10,403	930	11,303	
852532		REP TO HGR 3	P	860525	431,642	21,524	453,266	
852546		SECURITY FENC HGR 2	A	860128	39,994	130	40,094	
852550		RPRS TO RECREATION FAC.	P	971212	281,465	12,466	293,931	
852557		RE-FLIGHT BLDG 250	E	560113	19,383		19,383	
852565		RPL SMPT RCE STATV	L	870739	47,303	984	48,284	
852567		REP ROOF BLDG 533	P	851227	44,803	9,715-	35,085	
852569		HANGAR 2 SNOWGUARDS		661217	22,375		22,375	
852570		STEAM PLT REPAIRS	H	861310	92,003	6,529-	87,471	
852577		AVIATION'S SECURITY FNC	G	860110	29,263	1,130	29,363	
852580		STATION SIGNAGE	S	860516	19,452		19,452	
852581		PAINT HANGAR 5	P	560531	23,977	552-	23,415	
852582		PAVE STRIPPING	M	850715	29,289		29,289	
852607		RPR PAVEMENT	R	660535	51,903		51,903	

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LAST
MOD NBR

DOLLAR RANGE OF AWARDS (\$200) K

NC1141E33A0

809

AWARD	AMOUNT
1st Prize	100.00
2nd Prize	50.00
3rd Prize	25.00
4th Prize	10.00
5th Prize	5.00
6th Prize	2.50
7th Prize	1.25
8th Prize	0.62
9th Prize	0.31
10th Prize	0.15
11th Prize	0.08
12th Prize	0.04
13th Prize	0.02
14th Prize	0.01
15th Prize	0.01
16th Prize	0.01
17th Prize	0.01
18th Prize	0.01
19th Prize	0.01
20th Prize	0.01
21st Prize	0.01
22nd Prize	0.01
23rd Prize	0.01
24th Prize	0.01
25th Prize	0.01
26th Prize	0.01
27th Prize	0.01
28th Prize	0.01
29th Prize	0.01
30th Prize	0.01
31st Prize	0.01
32nd Prize	0.01
33rd Prize	0.01
34th Prize	0.01
35th Prize	0.01
36th Prize	0.01
37th Prize	0.01
38th Prize	0.01
39th Prize	0.01
40th Prize	0.01
41st Prize	0.01
42nd Prize	0.01
43rd Prize	0.01
44th Prize	0.01
45th Prize	0.01
46th Prize	0.01
47th Prize	0.01
48th Prize	0.01
49th Prize	0.01
50th Prize	0.01
51st Prize	0.01
52nd Prize	0.01
53rd Prize	0.01
54th Prize	0.01
55th Prize	0.01
56th Prize	0.01
57th Prize	0.01
58th Prize	0.01
59th Prize	0.01
60th Prize	0.01
61st Prize	0.01
62nd Prize	0.01
63rd Prize	0.01
64th Prize	0.01
65th Prize	0.01
66th Prize	0.01
67th Prize	0.01
68th Prize	0.01
69th Prize	0.01
70th Prize	0.01
71st Prize	0.01
72nd Prize	0.01
73rd Prize	0.01
74th Prize	0.01
75th Prize	0.01
76th Prize	0.01
77th Prize	0.01
78th Prize	0.01
79th Prize	0.01
80th Prize	0.01
81st Prize	0.01
82nd Prize	0.01
83rd Prize	0.01
84th Prize	0.01
85th Prize	0.01
86th Prize	0.01
87th Prize	0.01
88th Prize	0.01
89th Prize	0.01
90th Prize	0.01
91st Prize	0.01
92nd Prize	0.01
93rd Prize	0.01
94th Prize	0.01
95th Prize	0.01
96th Prize	0.01
97th Prize	0.01
98th Prize	0.01
99th Prize	0.01
100th Prize	0.01

MOD ANT
CURPRI-AWARD

CUPRI

LAST
MOD NR:

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CHS EXTRACT FILE

31 RUN DATE: 07/05/88

DOLLAR RANGE OF AWARD (\$300) K

PRCD00:

PRCD00:	DESCRIPTION	BOC	AWARD AMOUNT	MOD AMT CUTPRI-AMWD	CUTPRI	LAST MOD V6-
847594	MAG WINGWAL- RPR	D	97,443		97,443	-02
847595	RP- F/A SYS J-135 & 133	E	59,721	2,134	60,355	-01
847596	SLPDED 300F RPRS	C	142,842	549	143,491	-03
847599	L/L REVQV. TO BLDG 2703	T	203,989	12,255	215,254	-01
850007	SAFETY MODIFICATIONS	G	119,000	500	119,500	-01
850009	VARIA. ATTITUDE TEST STAIR	J	303,000	52,448	355,448	-01
850037	REPRS TO COLLARD SYSTEM	J	165,000	5,213	170,213	-01
850059	RPRS/RENOVATIONS-BLDG 109A	A	264,000		264,000	-02
850070	GENERAL REPAIRS DD 3	A	1,454,597	15,787	1,470,384	-02
850079	BOAT MODEL VAUTILUS FLEET	A	191,677		191,677	-02
850099	OPERATIONAL CONTROL CTR	R	7,023,195	708,255	7,731,460	-58
850107	REPAIR #SITC GEAR, BL 520M	R	92,769	1,550	94,619	-02
850113	CONCRETE FILLED PY-ONS	P	24,100		24,100	-01
850132	OVERHAUL/REPAIR ELEVATORS	G	1,999,053	55,431	2,054,484	-04
850140	SANITARY SEWER	A	91,000		91,000	-02
850149	DEM0 STORAGE OIL TANKS	M	479,107	2,242	481,349	-03
850152	ALCM ISLOOSR- PHS 5	M	975,367	9,735	985,612	-03
850155	MODE TO ENL- DINING	F	87,800		87,800	-11
850156	OPERATIONAL TRNG FAC	B	2,182,486	32,356	2,215,382	-03
850160	MAIN GATE IMPROVEMENT FAAP	D	257,255		257,255	-04
850181	RPR STATION ROADS	D	275,305	5,501	282,867	-04
850182	PAVE HOVEY SHOP	H	149,847	594	150,531	-04
850190	SMALL BOAT DOCKING FACIL	A	65,504	11,211	78,415	-08
850192	POWER/DATA/PHONE CABLES	L	847,000	143,680	990,680	-08
850300	PLER LIGHTING	M	36,145		36,145	-02
850303	VARIOUS REPAIRS	P	384,884	5,573	391,557	-02
850304	WHOLE CENTER REPAIRS	A	772,000	21,328	793,828	-05
850307	OUTDOOR PLAYING FIE-DS	H	681,000	45,775	726,775	-03
850317	REPAIR ELECTRICAL SYSTEM	S	343,000	3,280	346,280	-01
850324	UPGRADE SPRINKLER SYSTEM	A	72,720	12,823	85,543	-01
850328	RPR ROOF, BLDG 318	M	59,500	932	60,432	-04
850329	ORGANIZ MNT SHOP	P	535,000	43,421	578,421	-03
850342	WEATHERIZATION	A	464,587	7,800	472,387	-01
850382	RPR STEAM DISTRI9 SYS	S	26,000	715	26,715	-03
850425	ABT CONTROL B434	U	209,000	11,932	220,932	-05
850429	RPRS BY REPLACEMENT ROOF	M	145,000	11,235	156,235	-03
850430	RSSPS SPECIAL PROJECT	R	197,000		197,000	-10
850436	RPR ROOF BLDG 5	D	218,392	7,700	226,092	-02
850437	RPR ROOF BLDG 2 SEC C & DA	U	727,841	15,238	743,079	-01
850447			439,000	3,358	442,358	-01
			23,501		23,501	

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/88

DOL-AR RANGE OF AWARD (\$300) K

30

JUN30

KCDDUC

DESCRIPTION	BOJ	AWARD AMOUNT	CURPRI-AMT	CURPRI	LAST MOD VBR
REPAIR MAG WINGWALLS	860716	183,115	1,141	184,255	-32
REVISIONS TO BLDG 122	860304	609,003	2,433	671,403	-32
REVISION TO BLDG 2528	850916	200,003	13,945	270,945	-33
REPAIR BRIDGE NO. 2151	851122	56,963	3,476	60,435	-01
REPAIR BRIDGE NO. 2154	851124	34,703	15,530	51,303	-32
RENO LAB 2202	871326	39,733		39,780	-35
PASSENGER ELEVATOR 3/1300J	850522	154,363	11,349	165,409	-01
REFURBISH 14 RESTROOMS	950312	255,003	9,543	264,643	-35
PAINT/SIDING OFFICERS BTRJ	840918	42,974		42,974	-35
REPAIR ROOF ARCHES 3-W1J A	870136	303,198	109,335	403,063	-01
PATIO OFFICERS CLUB	850539	53,933	9,576	50,362	-35
FUEL STORAGE TANKS	860523	15,577		15,577	-01
EMERG REPRS TO RUNWAY	850231	17,051	3,949	25,003	-35
EXTERIOR DOOR REPL.	850214	21,957		21,957	-01
REPLACE WATER PIPE 2221G	860530	58,695	15,433	74,099	-35
FIRE A-ARM	860915	15,703	779	15,482	-01
COLLINE TOWER BLDG 34	841224	11,904	217	12,121	-01
REPLACE CULVERTS R-199	850225	13,805		13,305	-35
ADDITION H-103	860531	149,853		149,853	-35
ROOF AND TRUSS REPRS.	841231	89,325	2,423	89,325	-33
SECURITY IMPROVEMENTS	850319	85,003		82,583	-33
ADD 8-142 DRAIN 8-3333P	860536	207,403	1,145	208,545	-32
MODULAR BLDG FOUNDATION C	850525	38,671	21,322	57,993	-02
HEATING RECOVERY SYSTEM	951111	54,383	955	55,345	-02
REPAIR INLETS MANHO-E	871334	17,763		17,763	-35
DROP TEST TOWER B-131	850330	27,535		27,535	-35
HWY RESURFACE	850430	612,924	47,523	660,347	-35
REPAIR EXT WALLS B-2524	860919	343,873	13,295	362,165	-35
REPLACE A/C 2521-2540	841124	377,153	7,324	384,474	-36
REPLACE AIR COMP 9199	851216	119,499	15,153	135,652	-35
RENOV. TEST CELLS/HALLWAY	850227	37,935	1,207	39,142	-35
BITUMN CONCRETE REPRS H2ADP	850225	59,553		58,553	-35
REPAIR/ALTER SECND F-R B-78C	950930	15,283		15,283	-35
ALTERATIONS TO BLDG	871220	649,995	5,335	656,383	-36
PAINTING AREA D	860919	223,003		220,003	-35
CONVECTION PLANT U-35 57 S	851127	74,551	3,333	82,503	-35
ROOF REPLACE VARIOUS B-DGA	850329	255,003	3,171	259,171	-36
POLE 94TH BLDG. 2913	870239	79,963	327	79,795	-35
ADDTN 3-2859	870212	64,989		64,989	-35
MECH A-T VARIOUS B-DGS	860534	194,393	1,423	195,822	-35
ADD & REPLACEMENT OF BLDGS	870310	483,303	7,679	490,679	-10

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

LS	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$3000) K	MOD AMT	CURPRI	LAST
JUN30	DESCRIPTION	BOJ	AJARD AMOUNT	CURPRI-AWARD		MOD NR2
30000:						
*3154	PAVEMENT MARKING & STRIP-L	841228	24,353	154-	24,185	-31
*3157	CAD/CAM SPACES BLDG 562 A	850312	65,703	2,180	68,883	-32
*3159	ALTER 3-DG 38 OVERHEAD DOOR	850729	34,603		37,193	-32
*3161	BLUWOOD PIT TC 13-2 W	851215	221,903	94,633	316,533	-33
*3175	RRPSA-T TO FUEL FARM PIPG	861223	254,7915	91,732	346,517	-31
*3177	CONSTRJCT NACP STORAGE 3 G	850434	79,003	1,450-	77,543	-31
*3178	#2 FUEL OIL STORAGE FACILG	841131	89,003	1,274	90,274	-32
*3181	INSTAL- WATER OPER. WELL H	850232	21,531		21,531	
*3182	ALT TO ELECT POWER SYSTEME	850128	15,455		16,455	
*3190	REPAIR CONCRETE ROAD3 B	840910	281,125	31,331	312,456	-36
*3205	CLEARJOIT CATAPULT TNNEL G	841022	13,172	110-	10,363	-32
*3211	COVST EQUIP STOR R-1DG L	850426	189,275	1,153	187,439	-32
*3218	REP FIRE ESCAPE B 17 E	850510	15,803	594	17,494	-32
*3220	INSTAL- HEATING SYSTEM T	870227	62,803	1,533	64,303	-31
*3235	COVST NEW OFFICES 214/37L	860220	1,043,125	27,668	1,070,594	-36
*3251	CAT. "D" HOUSING REPAIRS L	860325	457,444	35,378	480,522	-35
*3256	COMPT RM BLDG 407 L	850315	37,212	31,447	69,659	-32
*3276	ALT TO COMD CLU9 B 15 F	851111	49,359	1,375	50,435	-32
*3278	DEMO SEWAGE TREAT. PLANT G	850725	143,303		140,003	-34
*3279	ELEC SYS BLDG 311,312,410L	850314	171,503	2,539-	168,911	-34
*3282	RESTROOM RENOV 3-13 A	860930	77,003	49,353	77,303	-35
*3283	CONCRETE LINTEL & WINDJ4 W	851018	289,003	20,382	338,363	-32
*3289	RENOVATE STAIRS, 3-DG #1 N	850238	24,003	2,359	44,382	-32
*3270	ALT. TO DMA B-27 P	850432	32,745	5,733	35,514	-31
*3281	NEW HANDICAPPED DOOR W	851211	12,403	1,347	18,103	-31
*3283	COVST RAMP/MD DOORS B-36M	851223	13,753	3,344	17,394	-32
*3287	DEMISH COAL ASH SILCS M	850939	67,653	1,539	69,003	-31
*3289	OFFICE RENOV. 9-1 N	850110	11,423	94,177	13,358	-31
*3284	FOOD SERV LINE REPAIRS N	850536	94,503	50,955	189,577	-36
*3280	EDMICS INSTALLATION M	851138	424,403		475,353	-33
*3287	RENOVATIONS TO RESTROOMS M	850538	14,959		16,959	-31
*3292	DOOR REPAIRS M	840713	15,253	75-	15,173	-31
*3291	HTS BOILER REPLACEMENT E	850319	19,603	678-	19,122	-34
*3296	EXTERIOR PAINTING N	841130	45,767	3,533	55,267	-31
*3293	VARIOUS REPAIRS K	850725	22,132	2,454	24,519	-34
*3197	REPLACE ELECTRICAL SYSTEM L	841231	117,645	4,359	121,703	-32
*3318	MISC REPS TO BUILDJ4 RD3FC	850739	21,561		21,661	
*3338	RMVE REPLC 3ITUM PAYNG S	841235	11,383		11,383	
*3398	FURN INSTL 3HWN FLNG V	860919	29,003		29,003	
*3314	ARCH REPAIRS B	850213	2,843,337	552,853	3,493,163	-15

PNDMDP.STAFF1.CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

27	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARDS (\$300) K	AWARD AMOUNT	CURPRI-AWARD	MOD AMT	CURPRI	LAST MOD VBR
43CDOC	DESCRIPTION	903						
1465	HAZARDOUS WASTE FLE-D	871134	45,000				45,000	
1469	RP ELECTRICAL DUCT	850116	45,000		1,725		45,425	-01
1492	HYDRO TEST TANK CONTAIN	860434	29,541				29,541	-03
1495	SKYLIGHT REPLACEMENT	850330	143,000		1,590		144,590	-03
1496	CRANE SUPPORT STRUCTURE	851308	92,000				92,000	-03
1505	REPAIR ROOF	860522	203,880				203,880	-03
1508	POTABLE PIPING REP.	860208	47,774		1,919-		45,355	-04
1706	XPND EXIS FUEL OIL FAC	850515	132,311		15,000		147,311	-04
1710	MARRIED OFFICERS QTRS.	850331	155,000		7,000		162,000	-03
1715	SECURITY DISINTEGRATOR	870215	115,123		52,355-		63,758	-01
1716	REPLC DEEC ELEC APPARATU	860513	77,665		336		78,502	-02
1723	PAVING REPAIRS GTE P 30	951227	245,123		33,500		278,723	-01
1726	REPLACE PERIMETER FENCE	860530	267,114		5,912		273,026	-02
1753	RENOVATIONS ZONE E-5	870731	110,794		46,709		157,794	-02
1766	CONSTRJCT POST OFFICE	870433	462,990		12,219		507,599	-06
1780	CONSTRJCT OFFICE AREA 3-1B	850329	233,520				245,739	-04
1781	CONST OFFICE AREA	870323	223,283				229,283	-01
1783	REPLACEMENT OF WAL- B-41 R	860721	711,110		11,515		711,110	-02
1796	REPAIR ROOFS BLDG. 182	950920	555,000				566,515	-01
1798	WIRE MESH FENCE BLDG. 1	841210	41,860				41,860	-01
1799	REPR ROOF, BLDG. 143A	841236	23,500		5,000		28,500	-01
1800	REPAIR HEADERS (SHAR AREAS	850329	69,791				74,791	-01
1823	PICNIC PAVILION	860530	38,721				38,721	-01
1827	REPRS ALTER MAIN ENTRNCE	850429	183,051		11,933		199,984	-03
1828	SECURE ADP FAC. C 35	871239	377,720		5,245		383,965	-04
1832	REPLACE BOILER #1,	860130	15,100				15,100	-01
1839	PPRS TO BLDG 70	870535	85,215		9,495-		76,720	-03
1859	REP STRM SHRS PRKG. T 1	850812	163,134				163,134	-01
1860	TEST LABORATORY BLDG 2	880224	83,345		1,435		84,830	-01
1861	EXT UTILITIES CON SJP CT	841131	64,500		9,237		73,737	-03
1815	RAMP WIDENING TC-13 CAT	850121	307,311		750		308,061	-04
1816	ADD BLDG 551	850225	172,595		7,143		179,839	-02
1819	ADTN TO B-456 FOR FITNESS	850227	173,000				173,000	-01
1820	PAINT SPRAY BOOTH 3 142	850218	49,500				49,500	-01
1833	RP2 ROOF, BLDG 434	870115	93,000				93,000	-01
1834	RP2 ROOF BLDG. 430	870115	133,700				133,700	-01
1835	RP9 HAVGAR ROOF BLDG 124	870139	317,650		143,533		460,183	-10
1839	MEZZANINE FOR NORTH WING	860725	93,000		1,537-		94,537	-03
1842	INC A/C CAPACITY B 120	851134	218,000		15,240		233,240	-03
1843	CONST & REPR FOR 34.5 CW	861332	107,700		38,395		146,095	-04
1852	NEW STORM DRAINING SYSTEM	850434	85,300		5,575-		90,875	-02

PNDHOF.STAFF1.CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 900 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

25	RUN DATE:	37/05/88	DOLLAR RANGE OF AWARD (\$5000) K	MOD AMT	CURPRI	LAST
JN30				CURPRI-AWARD		MOD NBR
00000	DESCRIPTION	BOJ	AWARD AMOUNT			
2367	EX/INT PT 218,219,215,220P	800224	42,900		42,900	-02
2370	REP PAVEMENTS PKG F C	870310	87,667	1,205	89,875	-03
2374	REDOOF BLDG AT THE NAS P	851015	65,575	33	66,508	-02
2381	REDOOF BLDG 211 R	850524	50,120	5,289	58,409	-01
2383	ALT & REP BLDG 12 & 20 L	850107	17,200		19,731	-01
2384	RECIRCULATING PUMP 3 2P5	850320	17,873	2,535	20,408	-01
2389	REP TO WATER MAIN C	860329	292,940		299,940	-03
2390	SUMMER STEAM SHUTDOWN P	850307	133,800	2,381	136,181	-01
2396	REP/ALT BLDG 200 C	861129	1,057,000	25,177	1,082,177	-05
2397	HGV 5 ROOF REPAIR S	860118	15,185	750	14,945	-01
2398	MNT. OF AC TAXIDAY PAVMNTD	841212	83,527	353	87,590	-02
2399	PPRS TO ROOF B-76 R	850530	33,880		41,180	-01
2401	RP3 3 PHS POWER SUPPLY L	850416	32,405		32,295	-02
2411	CHILD CARE CENTER F	851214	50,070		50,370	-02
2421	INSTL VEW SPRINKLER SYS H	850509	15,200		15,200	-04
2422	INSTAL WASTE OIL TANK M	841228	12,865		12,865	-02
2431	INT PAINTING OF 9-75 M	850730	27,777		27,777	-01
2441	ROAD REPAIRS M	841011	22,067		22,067	-02
2442	REPAIR FIRE ALARM SYSTEM P	850725	15,987		12,987	-02
2443	INSTL VEW SPRINKLER SYS H	850509	15,200		15,200	-01
2444	BOILER INSTALLATION B-501P	850414	46,217		46,217	-02
2445	ROOF REPAIRS & TRANS REPL	850415	62,797		69,797	-01
2474	REPLACE PCB TRANSFORMER S	850127	73,920		73,920	-01
2481	UPGRADE FIRE ALARM SYS M	870701	16,770		16,770	-01
2485	SHOWER STALL	870227	192,752		192,752	-02
2497	RP3 EXTERIOR HOSP 3 #442 B	850318	215,225		215,225	-04
2508	PROV GEN TELEP EXCHG B.77T	850131	61,400		60,700	-01
2514	REPL STREET LIGHTING LDOPL	850419	465,665	2,556	468,221	-01
2516	DEEP DRAFT SEPARATORS M	850229	127,990	2,000	149,484	-01
2518	DEMOLITION OF SOUND PIER W	841024	23,890		30,890	-01
2529	AC/DC TEST STANDS D	840307	12,415		12,415	-01
2537	REPR ECONOMIZERS B-2P S	850520	105,943	1,932	109,775	-01
2541	SEC POST & CHAIN SYS R	850417	26,842		34,842	-05
2552	AC 3 E-EC SRV 2ND F.R E	850525	163,300	4,217	163,317	-02
2562	PRVD AIR CVDTG/REC'DY CNTRF	850408	15,800		93,338	-03
2564	PHYSCL SECRTY SEAPNS AREAL	850423	88,888		64,008	-04
2569	RPL PNEU CNTRL B 440 P	870911	68,590		61,990	-02
2570	REPR HEATING SYSTEM B. 90G	850411	53,590		741,187	-05
2575	NEW WINDOWS WESTOVER C	850530	726,000	17,187	232,482	-02
2580	RP3 HOT WATER HTG SYS B	870227	196,284	38,198	49,834	-02
2586	REPLACE BOILERS 223 S	851015	42,834			

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE EDD IS PAST AND ACTUA.
SOURCE: CWS EXTRACT FILE

RUN DATE: 07/05/89

23

49 JN30

PRJCD02

DOLLAR RANGE OF AWARD (\$200) X

LAST
MOD NBR

CUPRI

WCD AMT
CUPRI-WARD

[illegible]

DESCRIPTION

100

441617	EXT PAINTING BLDG 35	E	840321	24,933	13,343	35,273
441618	DOOR REPLACEMENT B-3 355 C	D	850316	13,402		10,402
441619	POTABLE WATER CHLORINAT	C	860320	56,303	7,376	65,679
441620	ROOF REPAIRS-1	K	860725	683,000		683,000
441621	MASONRY RPRS B-1	G	860125	237,340	3,522-	238,862
441622	INT RPRS TO OR, BLDG 1	C	861135	81,473	24,335	105,808
441623	REPL SEA PUMPS/68,315,330D		850314	66,248	5,947	72,095
441624	MISC EXTERIOR PAINTING	L	841306	37,683		39,483
441625	HIGH VOLT CABLE, B112	C	850311	54,189	5,139	60,328
441626	STAIRWAYS, 3113A AND 113 C	H	841318	13,993		13,993
441627	AUWS SYSTEM NWC	H	850331	92,060	25,000	118,060
441628	REPL SCV FEEDER	R	850419	22,700		22,700
441629	LIGHTNING RODS, BLDG 29	H	850114	21,250		21,250
441630	REPL LANDING RAMPS, B1,47C	H	850311	87,000	7,348	96,348
441631	ROADWAY IMP, VIC GATE 4	H	850324	302,203	64,777	367,000
441632	EXTEND PRIMARIES ON CMT	S	841120	22,000	3,251	25,251
441633	SENSORS, LIGHTING SY B371A		860725	199,213		199,213
441634	REPL 23KV DISCONNECT, 146R	H	860417	13,430	1,175	18,400
441635	CORRECT LIGHTING, 3143	F	850307	15,215	718-	20,721
441636	RPL TRANSFORMER, TE-829 J	J	850713	21,439	3,548	81,548
441637	DEMO VAR BLDGS NETC NWPT C	C	850303	137,000		137,000
441638	ROAD REPAIRS NETC	D	860310	59,800	3,220	63,020
441639	CONTR- RM EXP BLDG 127	B	850132	52,240		52,240
441640	ROOFING REPAIRS, BLDG 95	M	850306	17,400	700	18,700
441641	FLYNNAR-E STORAGE FAC.	A	850305	167,745	67,500	235,245
441642	INT PAINTING OF QUARTERS	T	850312	63,000		63,000
441643	DEMO WATER TOWER A-32	D	841105	25,000		25,000
441644	RP- FIRE ALARM CABLE	D	850127	25,000		25,000
441645	CO2 HOSE REELS, BLDG 112 9		870407	245,413	35,548	282,061
441646	RENOV 4TH FLY AREA, 1171C		251107	617,000	17,000	634,000
441647	REPAIRS TO BLDG 35, G.I. A	A	860328	105,295		105,295
441648	NEW ROOF P.102T, 1J5	E	851309	183,549	3,439	189,537
441649	RAVGE STORAGE BLDG	M	851329	43,700		43,700
441650	NEW ROOF, BLDG 110	A	851327	71,100	3,438	74,538
441651	NEW ROOF, BLDG 126	A	851320	87,235	23,125	115,360
441652	EXT TE-EPHONE DUCT, H75	P	950320	35,100		35,100
441653	NEW ROOF, BLDG 145	B	851320	102,000	5,039	107,039
441654	POILER SAFETY FACILITY	C	850321	22,574		22,574
441655	LANDSCAPING, GATE 7	H	870717	142,000	3,582	150,582
441656	REPL 5 MSG JNITS	M	850315	123,000	5,156	129,156
441657	BASE EXT ARCH PLAN	S	250719			

PYDMDF.STAFF1.CVT:-

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL-
SOURCE: CWS EXTRACT FILE

RUN DATE: 07/06/88

22

1JJN30

PRCDUC

DOLLAR RANGE OF AWARD (\$300) K

LAST
MOD Y87

CJTPRI

MOD AMT
CJTPRI-AWARD

AWARD
AMOUNT

903

DESCRIPTION

343515	RRPS TJ ELEC SYSTEM	M	850121	66,203	5,500	67,803	-03
343516	ALT TEMPEST SEC INT- LAB	M	870711	519,503	7,711	529,211	-02
343518	C-3 ARCT WVT HNGP	S	880131	3,113,917	146,576	3,255,493	-19
343526	RRPS TJ TERMINAL ROAD	P	850515	234,375	11,728	246,103	-03
343529	RRPS TJ CAPD & WOODS RD	A	850534	143,284	4,342	147,622	-03
343536	LEACH 3 IT, CAPE COD AFS	W	841118	12,763		12,763	-04
343537	REPR EEC. SYSTEMS	R	860309	121,203	31,351	152,261	-08
343539	FM-Y HSG. REPAIRS	G	861114	3,095,922	97,550	3,185,372	-02
343541	RMVL & ROUS4 GRADNG	S	841237	23,573	1,322	24,897	-02
343544	CORRECT LFT STA DRAINAGE	N	860331	681,325	33,254	719,593	-07
343604	DEMOLISH PIER	A	861330	197,303	13,303	215,303	-01
343605	MAIV GATE RELOCOT-GAIEHSE	D	860518	566,495	24,377	590,872	-09
343608	T-7 SOUND SUPPRESSOR	C	871327	409,803	12,598	422,506	-02
343610	OFF-BASE WORK	D	870716	2,173,413	146,359	2,322,976	-15
343613	INITIA- AWARD	A	860716	147,253		147,253	-02
343616	FUEL MANIFOLD VALVES	A	870733	873,003	204,550	1,077,553	-10
343618	REPAIR TANKS AND PIPING	A	860114	485,613	23,329	506,939	-04
343619	NEW OLD ROOFING	N	851139	176,673	11,738	188,408	-02
343620	REPAIR VERTICAL	D	871139	1,195,503	33,504	1,229,004	-11
343622	SMALL ARMS RANGE	D	860310	783,753	475	780,254	-04
343624	CHECK JAULT	P	880210	769,145	3,366	842,213	-21
343628	RRP/ALTER TRAINING BLD 31S	K	870530	235,231	3,779	240,310	-05
343644	RRP TAXILOACY LIGHTS	S	850335	153,503	11,914	165,414	-03
343652	REPAIR ROOF	E	850537	54,993		54,993	-03
343661	REPAIR ROOF	T	890211	47,703	3,541	44,359	-01
343664	RRP STA PERIMETER FENCE	C	870327	139,813	2,122	141,932	-02
343676	REPAIR HANBAR ROOF 3L 1	B	861339	321,505		321,505	-05
343681	A/C SECURITY GROUP	C	870530	281,363	745	282,105	-03
343683	HRI-82 EXTERIOR REPAIRS	B	860530	25,733	5,727	32,513	-02
343684	HANDICAPPED ACCESS	D	870310	223,571	3,133	223,671	-02
343727	ROOF REPLACEMENT B-36 711V	D	880423	45,475	349	45,126	-02
343731	REFUEL VEH-PARK HTD	B	870733	567,003	5,554	573,554	-02
343933	FABRIC AND OPTIM BJOIL T3S1	K	840331	107,842		107,842	-06
341455	5-TON OVERHEAD CRANE	K	870328	741,744	19,334	761,278	-10
341462	FABRIC 50-TON JET CRANE	H	850125	481,935	53,445	540,381	-03
341605	POLLUTION ABATEMENT	A	850129	38,863	1,317	37,843	-03
341607	PRIMARY POWER REPAIRS	F	850535	185,903	22,317	209,717	-03
341613	REMOV TOILET FAC B 114	C	850521	25,447	2,352	27,309	-01
341614	RRPS E-LEC SYST BLDG 1A	A	850411	36,952	2,148	39,103	-01

PJCMDF.STAFF1.CNT-

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 30D IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

21	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$000) K	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD NBR
J430	DESCRIPTION	BOJ	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD NBR
00002						
J112	REPAIR SWITCHGEARS 3L 520S	850331	432,000	25,253	457,253	-08
J116	PIER 7 RPR SYSTEM	860301	1,437,540	294,233	1,731,773	-10
J117	REPAIR FIRE SYSTEM	861112	976,250	20,775	995,025	-07
J123	HR1,3-33	851122	2,970,000	315,373	3,285,373	-09
J126	HR2-83	860505	2,407,420	168,916	2,576,336	-03
J127	WHOLE SITE RRS 3TRS G 3 FN	850503	76,740		76,740	-03
J133	PR 3, 4TR LINE EXTENSION	860102	387,205	3,547	395,753	-03
J143	VACUUM PUMP INSTALLATION	850530	53,810		53,810	-01
J145	RPR POTABLE WTR PIPE	871118	129,924	22,000	151,924	-02
J147	REPAIR COMPRESS AIR LIVE C	860130	584,100	75,239	660,339	-13
J152	MA-E/FEMALE HEAD REPAIR	860307	47,500	5,227	52,727	-02
J101	REPR H/VAC-JEPH 972	860320	535,240	24,441	559,681	-11
J103	RPR ELEC DIST SYS FEED/94S	860714	242,700	35,254	277,954	-05
J105	TEST ANALYS B-533 1ST FLRG	860523	592,447	93,225	675,673	-06
J109	PERISCOPIC FAC ADTH	860508	887,445	5,870	893,315	-05
J110	REPAIR ROOF, BLDG. 1000	870311	444,440		444,440	-03
J117	REPAIRS TO AHAF H	860730	247,805	55,558	303,363	-06
J122	RPR DUSTWORK-BOILERS	871120	1,484,400	39,310	1,523,710	-05
J126	RPR ROOF BLDG 105	861302	90,800	7,254	98,054	-02
J127	REPAIR ROOF, BLDG. 663	860315	141,200		141,200	-10
J136	D.P. FACILITY RENOVATIONSP	860309	1,017,000	452,384	1,469,384	-03
J142	RPR/A-1S ACQ DEPT 77L	870227	1,194,000	3,315	1,197,315	-07
J149	REPAIR ROOF, BLDG. 663	860306	141,200	63,956	205,156	-05
J251	TACAM/GPS VAUGHN E2PT	870917	3,180,000	227,595	3,407,595	-07
J252	DIESEL TRAINING FAC-II	850223	4,438,840	50,350	4,489,190	-10
J276	SOLAR HEAT SYSTEM	841102	10,444	21,335	31,779	-16
J295	OWN SRVLC BLDG-ADTV	870622	2,049,661	2,929	2,052,590	-02
J331	OIL SPILL PREVENTION	870912	293,900	76,188	370,088	-20
J354	YOS3A STAIR TOWER 3-DG114C	860318	184,983	25,101	210,084	-09
J355	TAY T-5 AND STH APRN REPB	870506	3,095,491	13,277	3,108,768	-02
J361	COOLING TOWER RELOCATION	850308	24,268	31,176	55,444	-06
J366	EXTERIOR RPRS BLDG 53-OUTP	870423	179,000	11,748	190,748	-02
J369	CONSTRUCT SCVD FLR C-SRM	860326	76,062	9,224	85,286	-04
J391	NEW PASSENGER ELEVATOR	860729	179,310		179,310	-03
J432	MATERIALS SVS FAC ADDN	880501	148,000	1,459	149,459	-01
J502	ADD AIRCPT PKG GVNAS	850513	851,499	3,500	854,999	-02
J505		860515	804,400	15,274	819,674	-03
J510		871113	1,935,935	57,191	1,993,126	-10

P40MDF,STAFF1,CNTL

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

20	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$3000) K	903	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD VBR
3396				RPL BOILERS R-2574	279,903	3,374	282,974	-02
3407				RENO PAYS 11-13 9-13	95,813	5,415	101,225	-03
3410				2ND DECK AND OFFICE 9-13	81,703	15,533	95,303	-02
3428				RENOVATE B-2087	243,993	65,533	315,523	-05
3433				RENOVATE HLDG 2038	129,619	25,659	159,279	-04
3463				RENO. SECOND & 3RD FL. 41A	129,439	33,438	129,439	-04
3465				RPL F/A SYS	97,003		129,439	-04
3475				AIR COMP METERING	46,203		46,203	-02
3490				RP - UNDERGRND ELEC SYS	233,003	23,738	253,709	-01
3591				REP ROOF L/1203, 9430 ETCU	129,123		179,123	-07
3593				HELICOPTER INTERGRAIN FACD	338,003	25,934	363,984	-01
3599				REPAIRS UEPH BLDG. 55	328,344		328,344	-01
3540				Y749A, SAFETY ALT.	62,203	158	62,359	-01
3561				REPAIR BLDG. 27	55,903	540	56,443	-01
3586				HEATING KPRS B-#36	99,793		99,793	-05
3703				REPLACE ROOF BLDG. 521	277,439	22,980	300,319	-05
3712				RPR ROOF, WINDOWS, DR SONG	199,703		199,700	-05
3712				PARKING LOT PAVING	731,173	64,172	795,342	-02
3712				RPR ST 14 ADJFETT	161,703	4,503	166,209	-02
3713				ROAD & SIDEWALK REPAIRS	329,903		329,903	-03
3713				ROAD/SIDEWALK REPAIRS	587,503	97,455	684,955	-03
3725				REPAIR/REPLACE ROOF	691,003	347,242	1,238,242	-03
3728				STREET IMPS. MC	117,893		117,893	-07
3734				ROOF PAYS BLDG 81-H	215,899	129,716	345,915	-07
3734				ROOF REPAIRS	73,952		73,952	-03
3734				ROOF REPAIRS	103,769		103,769	-03
3734				ROOF REPAIRS	192,529		192,529	-03
3756				ALIGN BRIDGE CRANE RAILS	26,953	3,474	28,424	-06
3756				RPR/ALT TO CODE 604 OFC	433,803	45,773	489,573	-06
3790				EXT REPAIRS, BLDG 432	17,503		17,503	-01
3790				NEW ROOFING BLDG 132	129,003	5,732	135,782	-01
3793				NEW EXT DOORS	73,603		73,603	-01
3793				REPAIR CDE 203 VP OFFICES	587,684		587,684	-12
3798				REPAIR AC, #26 BLDG 1	359,003	52,773	642,654	-05
3798				REPAIRS TO AC38	568,103	23,363	382,363	-03
3798				NC1-83 NEW MIL HOUSING	195,593	91,178	649,278	-04
3798				INSTILL FUEL OIL FDMR TKM	112,211	493	195,105	-04
3798				INSTAL - JIB CRANES & BRWL	133,333	7,233	119,411	-02
3798				CROSS-SATE SIGNALS	116,754	53,335	186,369	-01
3798				FACILITY ENERGY IMPS	1,423,577	3,343	113,794	-04
3798				CRANE RUNWAY	1,117,003	18,264	1,401,633	-03
3798						2,756	1,119,765	-03

PVMDOF.STAFF1.CNT.

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 3DD IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

16	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$300) K				LAST MOD NBR	
JUN30								
30000								
	DESCRIPTION	BOJ	AWARD AMOUNT	CURPRI-AWARD	CURPRI			
22730	EXT PAINTING FAMILY HS3 C	870331	35,423	3,527-	31,893	-03		
22751	TRIDENT SETAR SUP FAC 112M	940237	223,942	11,437	235,429	-01		
22752	RPRS. NO. 2 KMER, SJH 7 C	951229	96,255		96,255	-02		
22753	REPLACE OCS'S SUB STA. 7 O	840925	124,003		124,003	-03		
22764	RENOVATE TOILETS, 3-DG 115	840514	113,557	14,579	128,145	-03		
22788	STORM DRAINAGE, CHI, QTRSS	840725	69,375	5,008-	64,367	-03		
22799	WALK RPRS VETC	851226	45,973		45,973	-05		
23306	ALT/RPR BLDG 164 2ND FLR L	860327	385,003	9,378	394,378	-01		
23336	PRV. 4TG. ELEMENTS	830437	11,403		11,403	-01		
23342	REFINISH GYM FLOOR	860528	55,093		56,003	-02		
23355	SITE PREP ADP FAC 333	870122	74,444		74,444	-05		
23361	RENOVATIONS TO 3-141	850435	97,603	20,572	118,172	-02		
23369	ALT'S SOUTHEAST SIDE	871026	94,812	2,765	97,577	-02		
23701	RPR FIRE DAMAGE QTR5 6108E	831011	12,463	1,155	13,615	-03		
23705	CONCRETE PLTFRM/WALL REPRS9	841017	126,782	29,314	156,095	-03		
23706	RPR BOILER MESS HALL	841121	181,003	3,400	184,403	-03		
23707	ROAD REPAIRS	850137	159,003	22,165-	136,835	-09		
23714	REPAIRS TO FENDER FILES C	841034	263,159	49,538	721,847	-03		
23725	RACQUETBALL COURT ADDITION	850137	87,669	7,193	94,868	-05		
23814	FLEET MOORINGS	850731	239,003	5,235-	232,715	-05		
24453	NF4D IM-ROV PROJ CASEHART	851231	169,703	2,254	169,703	-04		
24460	EXHAUST VENT SYS B-177 T	841122	12,879	3,259-	15,133	-02		
24461	EXHAUST VENTILATION SYS B	850314	71,303	3,551	68,331	-04		
24462	EXHAUST VENTILATION SYS G	850329	29,803	3,551	37,351	-03		
24463	EXHAUST VENT SYS B-D 23	850329	75,289	979-	75,293	-03		
24464	5439 EXH VENT SYST	860530	359,989	13,577	375,565	-03		
24465	EXHAUST VENT SYS B-D 121 M	850719	111,403	21,435	132,835	-03		
24466	RPR WATER STOR. TANKS	850236	349,634	69,400	399,334	-03		
24467	HEATING RPRS BLDG-57	860123	55,952	5,020	62,972	-01		
24483	ROOF REPAIRS BLDG 94	841218	215,003	21,145	237,145	-05		
24483	WINDOW RPL 34121	851031	693,403	4,575	698,375	-03		
24485	RPL CARCO DRS BLDG W83	841235	119,944	1,035	120,929	-01		
24486	REPLACE/REPAIR DOORS	860517	228,473	5,514-	272,959	-02		
24491	REPLC 3 FIRE PUMPS BLDG 23C	821231	202,254	1,574	203,828	-02		
24501	ROOF REPL BLDG 57	860115	443,122	323,416	771,538	-05		
24510	RPL DRAINAGE PUMPS 3-713 T	860115	157,703	13,125	167,825	-01		
24511	BLDG 23 TOILET FACI-ITIESA	851230	154,613	5,400	160,013	-01		
24514	RPRS 3-DG 75	841127	279,603	33,575	313,175	-06		
24532	DRYDOCK 465	830918	185,103		186,103	-02		
24537	233 INS SHP FWTP DEMIN	850719	82,495	1,387	82,382	-02		
24555	ROOF REPAIRS, BLDG. 77 U	850313	179,743		178,743			

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

17	17	07/05/83	DOLLAR RANGE OF AWARD (\$300) K	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD NBR
JJN3U							
00000:							
	DESCRIPTION	BOC					
3382	INSTL BATTERY SHOP	950132	42,583			42,583	
3384	TE-EPH SYSTEM INSTAL	860533	55,476			55,476	
33941	SURETY TAKEOVER AGREEMENT	830930	113,457			113,457	
33947	LANDSCAPING TRIDENT PARK	950312	199,893		4,137-	196,791	-01
3466	ERECT 165-TON DERRICK	870328	3,359,503		156,213	3,513,713	-29
3473	15T LIVAC CRNE CHINA L&E	851131	382,463		12,316	396,777	-06
34705	REPL CHLORINATORS-FT AD	831125	13,437			10,437	
34713	REPLACE FENCE	950732	224,641		25,327	251,469	-03
34714	REPAIRS & ALTS BLDG 117	850210	599,275		53,856	653,139	-05
34752	RENOVATIONS, BLDG 13	940934	583,215		52,263	635,478	-07
34760	RPRS TO O/H DOORS 3 1173	851230	32,452		1,597	34,159	-01
34761	NEW BRIDGE CRANE 81171	870417	58,357		2,987	61,344	-01
34770	RPRS TO FEEDER CABLE	840320	72,285			72,285	-01
34781	INT & EXT PAINTING	840323	25,003		9-	24,992	-02
34783	CONTR - IMPROVEMENTS NETCO	840321	16,823		3,957	19,577	-02
34789	REPLACE WINDOWS MAHAN 33	860912	81,705		526	82,311	-02
34799	EMERGENCY ALARMS BLDG 1787	880121	38,003			38,399	-03
34820	B.237 PLAN VAULT ADDITION	860537	65,603		5,411	73,311	-03
34823	PLAYARD CRANE STRJC	831216	193,803		55,430	201,449	-03
34827	PUMPE-L NO. 1 ALTS	850232	97,729		217,315	153,123	-03
34831	PEHAB BARGE BOILER	840416	898,025			1,117,043	-03
34834	REFUSE SUPERHTR BOILER 5	841310	69,254		31,332	100,385	-01
34870	RADIATION PROTECTION	871211	165,403		4,152	172,552	-02
34871	CLIM S/S VAULT BLDG 238	841315	12,203		5,512	17,712	-01
34880	ROOF REPLACEMENTS	960117	145,003		5,235-	155,762	-03
34916	FREIGHT ELEV RPLC, 3.42	860433	79,003		1,130	79,103	-02
34918	RENOVATE MEV'S RESTROOM	850313	23,803			25,903	
34922	REPL ROOF	860537	125,003		3,705	128,905	-09
34923	9.39 TEST CRIB	850322	29,798		2,537	32,435	-04
34947	EGRESS/ALARM DEFICIENCIES	871315	43,403		4,159	52,569	-02
34949	INSTAL GUIDES/STRESS	831315	67,493		4,379	73,569	-01
34952	REPL ROOF VAR BLDGS	861210	248,523		1,130	249,723	-03
34959	RIP RAP REPAIR	841120	137,795		127,353	267,555	-04
34969	SANDBLAST & PAINT CRANE	231311	12,595		9,579	22,173	-01
34964	LANDSCAPE CONTRACT	830313	17,203		5,565	28,395	-01
34979	RELINE 74 BATHUBS	831217	22,753			105,813	
34983	INSTAL-IP-3 TRAINER	841310	105,813			14,103	
34986	RPS EXTERIOR DOORS	861215	14,103			115,379	-02
34986	SWITCH GEAR	850514	67,929			67,662	-01
34986	MISC EXT PAINTING	840517	67,662			67,662	
34986	RP - WINDOWS BLDG 1	850132	42,329		47,130	42,329	

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

RUN DATE: 07/05/98

16

JUN30

00000

DOLLAR RANGE OF AWARD (\$300) K

DESCRIPTION	BOD	AWARD AMOUNT	CURPRI-AMT	CURPRI	LAST MOD NBR
QPR ROOF/DRAINS RL3: 2	E	491,000	9,000	500,000	-01
ALERT FORCE BLDG ADTN	P	377,800	536-	377,265	-05
DIVING HALL, PENSE AFB	J	822,963	38,556	861,532	-04
ALTER 3YM	S	145,400	4,799	151,199	-04
HOSP FIRE PROT PH II	B	549,900	50,315	610,215	-03
FIELD HOUSE	J	3,803,400	23,352	3,836,752	-07
WATER DIST LINE	Y	293,750		298,750	
PLAYING COURTS MADC	H	73,435	2,318	75,753	-02
GLASS BLOCK REPLACEMENT	M	135,000	3,373	138,373	-02
MECHANICAL REPAIRS	C	23,375	1,979	25,354	-03
ANTENNA (PAD)	M	135,900	4,709	140,609	-03
FAMILY SERVICES CENTER	S	669,787	13,593	683,385	-05
RETRO FIT OF BLDG 70	M	779,000	11,205	790,205	-02
WHOLE SITE REPAIRS	T	2,649,000	1,004,169	3,653,169	-06
HR4347	F	78,402		78,402	-03
H359A7REDUCE-NOISE-LEVEL-R	R	227,000	2,364-	224,935	-02
MAINT OF TAXIWAYS	S	199,353	2,364	201,997	-05
MAINT OF AIRCRAFT PARKINGS	S	180,268		180,268	
AIRCRAFT MVT. FACILITY	S	103,464	34,000	137,464	-03
UEPH UPGRADE	B	263,158	4,500	267,758	-06
CHILD CARE	S	24,295		24,295	-11
PARKING APRON REPAIR	S	1,089,000	35,507	1,124,507	-01
RECONSTRUCT RUNWAY	H	63,314	19,338	83,152	-01
ANNO SURVEILLANCE FACILITY	M	9,335,272	201,702	9,536,974	-05
SQADRON OPERATIONS	B	3,200,000	47,211	3,247,211	-03
UEPH	S	1,515,000	71,649	1,587,649	-02
REPAIRS/OVFLAY TMY	R	5,591,300	295,157	5,885,467	-05
PE3 16 17 JVLTS	L	745,123	65,432	811,525	-03
FAW H33 RPAS-FOREST PF,ILK	M	213,000	25,321	239,321	-02
H31,2,3-33 COM 16	N	196,789	2,310	199,099	-02
H31,2-33 REDCOM 13	N	243,700	13,157	256,857	-01
FAW H33 RPAS-WATERLOO,IA	M	492,872	32,723	532,795	-02
CATHODIC PROTECTION	M	281,781	23,734	305,515	-01
ENERGY CONSERV IMPS	S	243,300	53,494	301,794	-05
REPAIR RUNWAY 17/35	M	3,109,356	145,010	3,254,366	-01
FIRE RESCUE STATION	B	1,616,000	27,100	1,643,100	-04
ROOF REPAIRS HGR #1	T	340,250	550-	339,600	-02
RESERVE CTR ADTN	A	446,895	55,254	502,159	-10
WEATHERZTH/VAP BLDGS	M	77,800		77,800	-01
POWER FACTOR CORRECTION	C	35,500		35,500	

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PVDMDF.STAFF1.CNT:-

CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

14	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$300) K	803	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD VBR
24500	JUN30	24500						
24506		ROOF REPAIRS BLDG 541	A	850430	745,000	73,179	819,179	-04
24538		RPL AIR DRYERS BLD 22/23	U	950414	383,989		388,989	-08
24542		OVERHAUL OF CRANE AE-75	U	860416	395,320	33,572	429,892	-12
24550		BLDG 13274 ROOF REPAIR	S	850206	405,000	55,151	340,849	
24570		MISC. EXTERIOR PAINTING	B	830317	381,733		381,739	
24576		RENV ABSEST REPLACE INSJLAP	B	830330	617,862		617,862	-05
24513		FOUNDATION SAND SYS BL 20M	M	841124	429,465	151,739	580,255	-05
24549		FIRE DAMAGE REPAIR	H	840112	13,500	320	10,200	-02
24600		INT. REHAB. VAR. BLDGS	T	840306	163,054	4,275	167,329	-02
24591		REPLACE AIR DRYERS 3-D 520M	T	860331	389,989		388,989	-01
24571		INTERACTIVE GRAPHICS FLTS	S	820728	129,500	1,450	130,950	-03
24525		ALT/RRPS. TO DNIL C-INIC B	B	940126	112,225	1,387	114,113	-03
24529		POLLUTION ABATEMENT PROJ. W	M	870514	124,421	11,114	135,535	-06
24569		ALT REPR CURBS, SIDEWALKS	S	821116	19,990	561	19,429	-04
24555		INSTAL. HP AIR COMPRESSOR	D	830323	57,285	500	59,485	-01
24515		REDOOF	A	821112	781,262	5,708	787,970	-02
24546		RPR ROOF BLDG 405	S	830314	182,731		182,731	-01
24540		ASBESTOS REM & RPL INSJLT	T	840316	71,405	53,784	71,405	-03
24549		INSTLL COMBUS CONTR. SYS	S	860319	375,000		439,784	
24551		REAR FAST TST AR B2-1 FLR	R	821122	19,215	37,391	18,215	-11
24554		BOILER RM 3 REPL BOIL #1	H	850320	429,978	219	465,369	-03
24545		RENOVATE 00 DIRECTORATE	R	860304	210,110	45,199	210,329	-02
24539		REPR GALLEY	L	840320	109,500	2,347	154,599	-02
24563		CEILING & LITE PAY 3-25	S	830325	24,583		27,730	-02
24581		REHAB DISC-5 LEGAL OFFICE	R	830117	12,550	759	13,319	-02
24583		COMPUTER PWR MONITOR-B2	R	841312	19,303	2,302	22,105	-04
24590		RPR/ALT TO VAR. BIT. RDS C	C	850313	319,770	50,535	370,275	-03
245906		REPL HSH PRESS STM BOILER	D	851104	1,137,523	42,793	1,180,316	-09
245910		RPR WOOD WDW SASH 3-120 M	M	850328	56,000	14,354	70,354	-04
245919		FIRE PROTECTION WATER LINK	M	850331	190,000	159	190,169	-01
245927		ALTER BLDG 9 TRANS EQUIP	P	850732	95,505	10,940	106,445	-06
245939		INSTL STEAM TRENCH COVERS	R	870311	55,200	2,370	59,270	-02
245147		SPILL CLEANUP	P	820322	12,977	2,743	13,134	-02
245157		LEASING OF VINE PAVEL VAMH	H	850731	64,452	45,135	110,587	-06
245183		INSTALLING WATERMAIN TIE R	R	840730	930,319	919	970,500	-01
245229		REPLACE BOILERS	A	841310	320,557	16,725	335,282	-04
245344		UTILITY LINES	S	850308	52,838	25,771	79,329	-02
245705		VENTILATE TEST LAB 3355	D	841319	37,710	1,553	39,263	-02
247143		REPR ROOF DRAIN, 3-DG. 4D	D	830331	13,295		13,295	-09
247146		NEW STRUCTURAL SLAB RL 1 M	M	861308	392,131	25,552	418,793	-02
247238		ALTS TO FROSTHETICS LAB 3	P	860322	193,000	9,359	206,069	-02

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE 300 IS PAST AND ACTUAL
SOURCE: CMS EXTRACT FILE

12	RUN DATE:	07/05/88	DOLLAR RANGE OF AWARD (\$3000) K	903	AWARD AMOUNT	MOD AMT CU*PRI-AWARD	CURPRI	LAST MOD NBR
JUN30								
00000:	DESCRIPTION							
0140	CONVL ROAD/FENCE	A	560524	435,289	125,790	553,069	-04	
0143	UPGRADE AIRFIELD PAVEMENT	V	830329	2,877,070	229,258	3,106,328	-03	
0147	ELECTRICALS SHOP MOD	M	850229	1,880,670	99,119	1,968,789	-05	
0151	PIER STRUCT. REHAB.	S	930706	263,800	157,330	430,830	-09	
0167	RPR/PP-C JP-AVGAS FILTRK	K	850424	147,832		147,832	-02	
0183	COMTNS ELEC TRNG FAC	B	850321	1,914,000	79,349	1,892,349	-03	
0184	ADD 303 350 AT0 MNT SHP	M	860307	1,113,165	41,340	1,155,005	-07	
0187	RPR BOILER	B	830502	84,290	4,519	88,909	-03	
0188	RPR TO SOUTH SIDE PIER 2 S	S	851029	2,453,630	290,522	2,741,152	-07	
0192	IMPROVE SEWER SYSTEM	N	860416	64,195	1,925	66,122	-02	
0193	CONSTR FAMILY SEVC CNTR S	S	860930	157,000		157,000	-04	
0194	PAVE PMS POWER LIVE	S	850724	939,000	7,576	945,576	-06	
0195	BOUNDARY SECURITY	T	861223	572,725	3,750	578,475	-06	
0196	INTERIOR PAINTING-WARFINCT	T	931231	15,000	50,000	65,000	-02	
0199	PIER UTILITIES	M	871125	2,453,000	175,659	2,625,659	-11	
0202	WHOLE CENTER RPR PROGRAM B	B	861209	847,949	124,596	972,445	-13	
0208	BLDS 4+ PS II	H	831209	1,398,805	43,130	1,447,935	-07	
0209	ALERT APPROV IMPROVEMENTS S	S	831110	2,795,809	299,347	3,095,655	-09	
0216	RPR/ALT STEAM HEAD 3LD 29N	N	871319	389,000	172,508	561,508	-06	
0218	PHONE DCT FOR 780 JEPH	M	830920	178,000	3,250	174,750	-01	
0225	INST DELUGE SYS	A	861229	1,784,480	87,501	1,871,981	-00	
0228	REFUEL VEHICLE MAINT. FACG	G	831122	755,900	3,909	762,809	-05	
0235	VEHICLE MAINT. FACILITY S	S	850503	5,637,459	523,558	6,261,127	-04	
0236	MISCEL. RPS	C	930406	15,775	408	15,183	-02	
0237	ELEC-DISTR SYS IMPS	F	880418	245,525	25,500	271,025	-03	
0256	REPAIR ROADS	D	941125	963,283	14,537	1,103,820	-10	
0257	MAINT & REPAIR PROJECTS M	M	841105	325,368	73,972	405,340	-10	
0260	SLR FEED-COND POLISHER ADH	H	861121	565,535	42,121	607,657	-07	
0281	EVALUATION FACILITY	G	870227	28,073,000	1,315,877	29,085,877	-42	
0287	IMPS TO CLUB-BLDG #506 W	W	860516	295,216	595	295,910	-03	
0289	REPAIR DAY CARE CENTER	M	840410	135,000	15,330	151,330	-03	
0292	REPR FIRE SFTY DISCREPN A	A	860720	197,000	155,392	41,108	-02	
0293	H1544/J5MA-5, NOISE OPERAI	I	871330	36,525	9,746	46,272	-03	
0296	OPERATIONS TRNG BLDG	M	830711	39,950	950	39,900	-03	
0297	RPR PUMPHOUSE FACILITIES U	U	870431	603,335	77,433	682,768	-06	
0304	REPR 3D 3 PHASE V JF V H	H	851026	775,989	55,902	833,791	-08	
0306	RPR HEAT'G SYS BLM 16/13 M	M	851129	464,369	11,200	475,569	-03	
0307	RPR CAPSTANS DDW 4 3 5 D	D	861217	2,442,000	9,528	2,452,372	-02	
0309	RPR PORTION BLM #23 U	U	851125	585,300	6,245	627,545	-04	
0320	PROCURE CHILLERS/ELEC CENT	C	830126	269,921	5	269,925	-01	
0334	EXTER TRANSFORMER/BVTR	R	830301	76,810		76,810	-01	

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CONSTRUCTION CONTRACTS GREATER THAN 10K
WHERE BDD IS PAST AND ACTUAL-
SOURCE: CMS EXTRACT FILE

11	33JUN30	PRCDDOC	RUN DATE: 07/05/83	DOL-AR RANGE OF AWARD (\$3000) K	303	AWARD AMOUNT	MOD AMT CURPRI-AWARD	CURPRI	LAST MOD NBR
			DESCRIPTION						
914765			RPRS 34GE PLANT B-JGS. M	820339	122,500	6,333	126,500	-01	
914773			REPR HVAC 3-3 PHS II H	870731	765,989	170,232	936,221	-05	
914776			REPAIR EXTERIOR BLDG #4 M	830236	365,300	15,447	381,747	-05	
914779			REPAIR ANNEX ROOF D	641130	555,900	153,535	402,162	-03	
914814			SMOKE DETECTOR PROTEUS DEM	820334	11,400		11,400		
914849			REPL WNR/AUTO START B-R K	830319	277,700	91,377	368,777	-04	
914850			SCOT B-JOWER REPAIR C	840413	53,350		53,350		
914856			ALT. 234 DIV. OFFICE R	530225	357,500		357,500	-03	
914903			REP 0475 RPR 2473/4 P	930322	41,376		48,769	-02	
914906			RPR DOOR CONTROLS J	850222	35,585		37,960	-01	
914911			RPRS W HS CONDENSATE SYSD	830237	69,989		71,724		
915223			ALT/REP 8123 D	840338	163,987		163,987	-02	
915284			MASRY REPRS 2 OTHER EXTRE	820229	135,000	15,449	136,000	-02	
915384			RPR TO FIRE PROTECTION K	830236	92,840		108,289	-01	
915386			WINDOW REPAIRS BLDG #123 P	830211	69,200		69,200	-01	
915213			CONVEYOR BRIDGE 9-2103211L	811327	73,330	2,355	76,185	-01	
915239			INT/EXT MAINT PAINTING FML	820122	15,920		16,920	-01	
915256			X-RAY 4FMK F	820434	13,060	535	13,595	-07	
915940			REPR ALTER RADAR PENTHSE H	341119	114,900	9,399	123,999	-06	
915999			VP FAC EXPANSION G	830726	164,194	9,950	174,144		
915625			RPR EAST DRIVEWAY 3-DG 16	810338	45,677		45,677		
915922			RPR STING 3189 H	840434	43,800		43,800	-03	
915931			RPR DOOR TRACKS W	851135	424,100	42,425	466,525	-02	
915932			CONSTRUCT SAN SEWER LINESI	820315	42,875		42,875	-03	
915937			RESIDIOUS CENTER G	850920	189,830	3,280	193,110	-10	
917130			AIR COND/ALTER TO CM N	850531	142,979	55,500	198,479	-04	
913690			SEWAGE CONNECTION C	910436	63,000		60,000	-01	
920001			UPGRADE INDUSTRIAL P-VT L	831317	345,300	77,350	422,360	-01	
920013			CONSTR HEAD MMF COMPLEX L	850131	37,300	1,330	38,000	-01	
920014			RP-PC3 TRANSFORMERS D	850130	70,771		70,771	-05	
920030			ALT TO COMPTMT A 6D 580	840713	552,150	9,396	560,246	-15	
920035			VAUTILUS MEMORIAL C	851321	5,123,000	224,558	5,347,558	-01	
920045			RPR POTABLE WATER TANKS Z	821235	24,599		24,599	-23	
920060			SOLAR MODIFICATIONS G	831138	24,555	729,549	24,565	-04	
920065			HOT WATER MAINS PEASE AFD	840115	2,562,745		3,292,295	-04	
920102			ANVX 3 SWITCH GR/SUSTA M	830436	42,400		42,400	-04	
920103			RPL SOLER PLANT DEREGATION	841215	172,972		192,599	-04	
920121			SIMP II S	831333	962,500	29,431	891,731	-04	
920125			CRUISE MISSILE SUPPORT U	840410	2,495,994	151,375	2,647,573	-04	
920129			RPR STATION ROADS M	860725	369,413		368,419	-07	
920130			QUAYWALLS J	560330	2,463,565	33,359	2,502,624	-07	

PVJMDP.STAFF1.CVT -

APPENDIX G
CONSTRUCTION FIRM FAILURES

CONSTRUCTION
EXPENSES FACILITIES

YEAR	General Contractors		Sub Contractors		Other Contractors		Total Contractors	
	Amount	Location	Amount	Location	Amount	Location	Amount	Location
1941	197	5250	500	5040	10	2100	707	10000
1942	197	5250	49	540	10	300	256	10000
1943	197	5250	500	5407	10	300	707	10000
1944	400	10000	700	10000	10	300	1110	10000
1945	440	10000	500	10000	10	300	950	10000
1946	700	50000	1000	10000	10	300	1810	10000
1947	800	50000	1000	10000	10	300	1910	10000
1948	800	50000	1000	10000	10	300	1910	10000
1949	800	50000	1000	10000	10	300	1910	10000
1950	800	50000	1000	10000	10	300	1910	10000
1951	800	50000	1000	10000	10	300	1910	10000
1952	800	50000	1000	10000	10	300	1910	10000
1953	800	50000	1000	10000	10	300	1910	10000
1954	800	50000	1000	10000	10	300	1910	10000
1955	800	50000	1000	10000	10	300	1910	10000
1956	800	50000	1000	10000	10	300	1910	10000
1957	800	50000	1000	10000	10	300	1910	10000
1958	800	50000	1000	10000	10	300	1910	10000
1959	800	50000	1000	10000	10	300	1910	10000
1960	800	50000	1000	10000	10	300	1910	10000
1961	800	50000	1000	10000	10	300	1910	10000
1962	800	50000	1000	10000	10	300	1910	10000
1963	800	50000	1000	10000	10	300	1910	10000
1964	800	50000	1000	10000	10	300	1910	10000
1965	800	50000	1000	10000	10	300	1910	10000
1966	800	50000	1000	10000	10	300	1910	10000
1967	800	50000	1000	10000	10	300	1910	10000
1968	800	50000	1000	10000	10	300	1910	10000
1969	800	50000	1000	10000	10	300	1910	10000
1970	800	50000	1000	10000	10	300	1910	10000
1971	800	50000	1000	10000	10	300	1910	10000
1972	800	50000	1000	10000	10	300	1910	10000
1973	800	50000	1000	10000	10	300	1910	10000
1974	800	50000	1000	10000	10	300	1910	10000
1975	800	50000	1000	10000	10	300	1910	10000
1976	800	50000	1000	10000	10	300	1910	10000
1977	800	50000	1000	10000	10	300	1910	10000
1978	800	50000	1000	10000	10	300	1910	10000
1979	800	50000	1000	10000	10	300	1910	10000
1980	800	50000	1000	10000	10	300	1910	10000
1981	800	50000	1000	10000	10	300	1910	10000
1982	800	50000	1000	10000	10	300	1910	10000
1983	800	50000	1000	10000	10	300	1910	10000
1984	800	50000	1000	10000	10	300	1910	10000
1985	800	50000	1000	10000	10	300	1910	10000
1986	800	50000	1000	10000	10	300	1910	10000
1987	800	50000	1000	10000	10	300	1910	10000

APPENDIX H
SBA and SCORE
BUSINESS ASSISTANCE

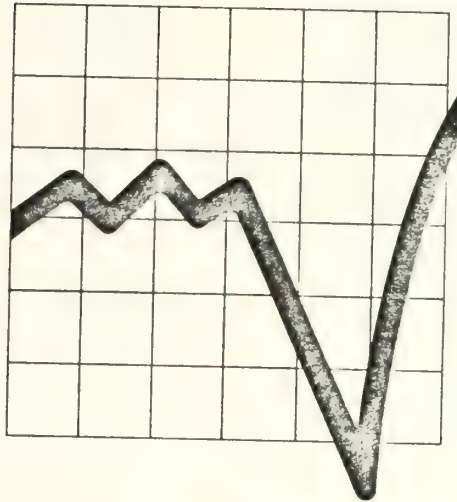
	SECTION
COUNSELLING	A
Sometime Small Business Needs Help Georgia SCORE/SBDC directory	
TRAINING	B
Small Business Administration Spring 1988 Training Schedule April-July 1988 SCORE Seminars and Workshops Small Business: The World is Your Market	
PUBLICATION LISTS	C
Business Development Booklets Directory of Business Development Publications Directory of Business Development Publications Order Form	
SAMPLE PUBLICATIONS	D
How to Operate a Small Business Legally Georgia Business Plan for Small Construction Firms Should You Lease or Buy Equipment? Selecting the Legal Structure for Your Firm Feasibility Checklist for Starting a Small Business Analyze Your Records to Reduce Cost Budgeting in a Small Service Firm Breakeven Analysis: A Decision-Making Tool	
COUNSELLING NOTES	E
Small Volume Home Building (#108) Paint and Decorating Centers (#128)	
PROCUREMENT AUTOMATED SOURCE SYSTEM (PASS)	F
PASS Information Booklet	

APPENDIX H

Section A

COUNSELLING

**SOMETIMES
SMALL
BUSINESS
NEEDS
HELP**



**CALL
SCORE**

**Would you like to talk
with someone who has
had the same kinds of
business problems you
have — and who solved
them successfully?**

**Would you like to talk
to someone about
starting a new business?**

**Would you like to get
this valuable advice at
absolutely no charge?**

That's what SCORE is all about. Free business counseling by men and women who have had successful business careers as company executives or owners of their own businesses.

They are willing to share their knowledge and experience at absolutely NO CHARGE.

And they are as close as your telephone. SCORE has counselors in all 50 states, Puerto Rico, Guam, the Virgin Islands and the District of Columbia.

**EXPERIENCE YOU
CAN'T BUY —
BUT IT'S FREE!**

Even if you were willing to pay for management counseling, it would be difficult to find the

specialized experience to match your particular problems.

But SCORE can fill your needs. SCORE exists only to provide free information and advice on practically every business.

From ladies ready-to-wear retailing to food services and restaurants,

From construction to electronics and computer technology,

From advertising and marketing to financial control,

From purchasing to . . .

Name it and there's a SCORE counselor who talks your language

It is important to organize and manage all the special skills of a business in a way that will make the business operate successfully—

And SCORE counselors have that management ability!

**SCORE
COUNSELING—
ONE PERSON OR
A TEAM**

The counselor chosen to serve you has the experience that most closely parallels your needs. But no one is an expert in every type of business. So your SCORE counselor may call on other SCORE members for their special expertise.

Your counselor—or team—meets with you personally and as frequently as necessary. They analyze and define your problems. They help you find solutions. They keep checking with you to see how the solutions are functioning. The period of counseling may take as little as a week. Or a year. Whatever length of time needed.

All information learned about your business is CONFIDENTIAL. It is not revealed to anyone outside of SCORE.

A TRADITION OF EXCELLENCE

Nationally, SCORE has helped thousands of small businesses iron out their problems. Many owe their success to the assistance received from SCORE.

Help for you is as near as your telephone. To learn how you can get personal counseling for your business, telephone or stop in at the SCORE office. There is no obligation.

Or, if you wish, you are welcome to attend any of the seminars and workshops SCORE periodically conducts. They cover major considerations for running a business. To find out when and where they are held, call SCORE.

SCORE

Sponsored by U. S. Small Business Administration

Service Corps of Retired Executives Active Corps of Executives (ACE)

* * * * *

FREE COUNSELING FOR SMALL BUSINESSES

* * * * *

WHAT IS SCORE?

SCORE IS THE SERVICE CORPS OF
RETIRED EXECUTIVES.

SCORE IS A NONPROFIT ASSOCIATION
PROVIDING FREE BUSINESS
COUNSELING.

SCORE IS BRAINS, IDEAS, SKILL
AND EXPERIENCE.

SCORE IS 10,000 RETIRED AND
ACTIVE EXECUTIVES.

SCORE IS VOLUNTEERS READY TO
SHARE THEIR SKILLS.

SCORE IS COUNSELING ON SMALL
BUSINESS PROBLEMS.

SCORE HAS A BACKGROUND OF
MORE THAN 20 YEARS OF
SUCCESSFUL COUNSELING.

SCORE'S COUNSELING SERVICES
ARE FREE.

Georgia SCORE Chapters

Atlanta 1720 Peachtree Rd., N.W.
Suite 600-A, North
(404) 347-2441

Albany 235 Roosevelt Avenue
(912) 888-7007

Augusta c/o Augusta SBDC, Augusta Colleg.
1061 Katherine Street
(404) 737-1792

Brunswick No Street Address
(912) 265-0620

Columbus Heritage Tower, Suite 105
18 Ninth Street
(404) 571-7357

Dalton Dalton-Whitfield Chamber
of Commerce
524 Holiday Avenue
(404) 278-7373

Gainesville .. Gainesville-Hall County
Chamber of Commerce
230 Sycamore Street
(404) 532-6206

Macon Middle Georgia Area Planning
and Development Commission
600 Grand Building
(912) 744-6160

Savannah Federal Bldg., Suite 8-B
125 Bull Street
(912) 944-4335

Statesboro ... Federal Building, Rm. 225
52 North Main Street
(912) 489-8719

(over)



A University System of Georgia Program

**Do you know what the
SMALL
BUSINESS
DEVELOPMENT
CENTER
can offer you?**

Georgia's 16 Small Business Development Centers offer free counseling to our state's small businesses. Established in 1977, the SBDC was designed to help you, the small business person.

We can provide you with information linking you with other businesses, industry and government.

Our counselors can provide you with information on:

- financial planning
- cash flow projections
- bookkeeping techniques
- sales techniques
- display and advertising
- marketing evaluation
- risk management
- organization structure
- inventory control
- employees & customers
- theft
- refinancing
- exporting
- starting a business

SBDCs are in partnership with the
U.S. Small Business Administration.

(over)

Georgia SBDC Directory

Albany (912) 439-7232
Albany Area Chamber of Commerce
501 N. Slappey Boulevard

Athens (404) 542-7436
University of Georgia, Chocopee Complex
1180 East Broad Street

Atlanta (404) 651-3550
Georgia State University
1 Park Place South, Suite 1055

Augusta (404) 737-1790
Augusta College, 1061 Katherine Street

Brunswick (912) 264-7343
Brunswick Junior College, Altama at Fourth

Columbus (404) 571-7433
Heritage Tower, 18 Ninth St., Suite 105

Dublin (912) 272-5546
Dublin-Laurens County Chamber of Commerce
1009 Bellevue Avenue

Gainesville (404) 536-7984
Georgia Mountains Center
1010 Ridge Road

Lawrenceville (404) 963-4902
Gwinnett Technical School
1250 Atkinson Road

Macon (912) 741-8023
Greater Macon Chamber of Commerce

Marietta (404) 423-6450
Kennesaw College

Milledgeville (912) 453-9311
Milledgeville-Baldwin Co. Chamber of Commerce
130 South Jefferson Street

Morrow (404) 961-3440
Clayton State College

Rome (404) 295-6326
Floyd Junior College

Savannah (912) 651-2533
12 West 43rd Street

Statesboro (912) 681-5194
Georgia Southern College

Valdosta (912) 247-8100
Lowndes County Chamber of Commerce
1604 N. Ashley

Warner Robins (912) 922-8585
Warner Robins Chamber of Commerce
1420 Warner Robins Road

APPENDIX H

Section B

TRAINING

SMALL BUSINESS ADMINISTRATION TRAINING SCHEDULE, SPRING QUARTER 1988

This is a schedule of small business training programs co-sponsored by the U.S. Small Business Administration. The program details are subject to change. Call to confirm listed information.

SCORE
1720 Peachtree Road, NW
Suite 600
Atlanta, Georgia
347-2442

PRE-BUSINESS WORKSHOPS-8:30AM-4:00PM (\$10.00 each)
Tuesday, May 10, 1988 (Rm 162)
Tuesday, June 14, 1988 (Rm 197-199)

(Free Parking for above workshops, compliments of the Beer Mug across the street)

SEMINARS - 7:00 - 9:30 PM (\$7.00 each)
(Rm 197-199)
MARKETING-A STRAIGHT FORWARD APPROACH

YOUR BUSINESS TAX PLANNING
MONEY SOURCES FOR SMALL BUSINESS
Monday, Apr. 25, 1988
START-UP PLANS FOR SMALL BUSINESS
Monday, Apr. 23, 1988
INTRODUCTION TO COMPUTERS IN BUSINESS
Monday, June 27, 1988

(Free parking at night at 1720 Peachtree Street. Please enter building 1st floor rear, double glass doors. You may also park across the street, compliments of the Beer Mug).

HOW TO APPLY FOR AN SBA LOAN-9:30-11:30AM (\$5.00 each)

Friday, May 6, 1988 - Room 197-199
Friday, June 10, 1988 - 197-199

(Free parking, compliments of the Beer Mug across the street).

PLEASE NOTE: All courses provide special information for Veterans, Vietnam-Era Veterans and Handicapped Veterans. Facilities are available for the handicapped.

SBA MINORITY SMALL BUSINESS
8(a) PROGRAM
1720 Peachtree Road., NW
North Tower 600-D
Atlanta, Georgia
347-7061

REQUIREMENTS AND OBJECTIVES OF 8(a)-2:00-3:00PM
(FREE) Wednesdays

Apr. 6, 13, 20, & 27, 1988
May 4, 11, 18, & 25, 1988
June 1, 8, 15, 22 & 29, 1988
July 6, 13, 20, & 27, 1988.

EMORY UNIVERSITY
Atlanta, Georgia
727-6000
Steve Stoffle

STARTING AND MANAGING A SUCCESSFUL BUSINESS
(\$55) (For Six Weeks)
Wednesday, April 13, 1987, 7:30 - 9:30
HOW TO START AND MANAGE A SUCCESSFUL BUSINESS (\$55.00)
Wednesdays, June 22-July 27, 1987, 7:30-9:30 p.m.

MIDTOWN YMCA
805 Peachtree Street at 5th
Street
Atlanta, Georgia
892-3476

HOW TO GET AN SBA LOAN (\$5.00)
Tuesday, May 24, 1988, 5:30-7:30 PM

HOW TO FORM A BUSINESS PLAN (\$15)
Tuesday, May 3, 1988, 5:30-7:00 PM
BASIC ACCOUNTING (\$25)
Wednesday, May 18 & 25, 1988, 5:30-8:30 PM
HOW'S YOUR FINANCIAL HEALTH (\$10)
Tuesday, April 26, 1988, 5:30-7:30 PM
Tuesday, May 10, 1988, 5:30-7:30 PM
PROFESSIONAL SELLING (\$15)
Tuesday, May 31, 1988, 5:30-7:00 PM
INTRODUCTION TO LOTUS 1-2-3 (\$100)
Saturday, April 23, 1988, 9:00 AM-5:00PM)
INTRODUCTION TO DBASE III + (\$100)
Wednesday, May 13, 1988, (9:00 AM-4:00 PM)

CLAYTON STATE COLLEGE/SBOC
Morrow, Georgia
961-3440
Jim Halloran

HOW TO START A SUCCESSFUL BUSINESS (8-part)
(\$50.00) Eight-part series each Tuesday from
7:00 P.M. - 9:00 P. M. starting April 5 through May 24,
1988.
BOOKKEEPING FOR SMALL BUSINESS (\$20.00)
Tues./Thurs. April 19, 21, 1988 6:30 PM-9:30PM
HOW TO START A NEW BUSINESS (\$20.00)
Thurs. April 14, 1988, 6:30 PM-9:30PM (Fayette Co.)
HOW TO START A NEW BUSINESS (\$30.00)
Sat. April 16, 1988 9:30AM-4:30PM
Sat. May 21, 1988, 9:30AM-4:30PM.
SMALL BUSINESS INSURANCE (\$20.00)
Wed. April 20, 1988, 6:30PM-9:30PM
SMALL BUSINESS TAX WORKSHOP (\$20.00)
Thurs. April 21, 1988, 8:30AM-4:30PM
PREPARING LOAN PROPOSALS (\$20.00)
Mon. April 25, 1988, 6:30PM-9:30PM
MAIL ORDER (\$20.00)
Thurs., April 28, 1988, 6:30PM-9:30PM
PERSONAL FINANCIAL PLANNING FOR THE SMALL
BUSINESS OWNER (\$20.00)
TELE-MARKETING SALES (\$20.00)
Thurs. May 12, 1988, 6:30PM-9:30PM
INTERNATIONAL SMALL BUSINESS (\$20.00)
Tues. May 24, 1988, 6:30PM-9:30PM
LEGAL ASPECTS OF DOING BUSINESS (\$20.00)
Thurs. May 26, 1988, 6:30PM-9:30PM.

GEORGIA STATE/SBOC
Urban Life Center
Atlanta, GA
Peter Rassel
651-3550

GRASP COURSE II
DEVELOPING YOUR BUSINESS PLAN (\$450.00)
10 Saturdays, Feb. 6, 13, 20, 27, 1988
Mar. 5, 12, 19, 26, 1988, Apr. 16, 23, 1988

GEORGIA STATE/SBOC
Urban Life Center
Atlanta, GA
Peter Rassel

HOW TO OPEN YOUR OWN RESTAURANT (\$95.00)
Preregister by Apr. 25, 1988
6:30PM-9:30PM., Apr. 25, 1988, Saturday,
April 30, 1988, 9:00AM to 5:00PM

NORTH GEORGIA REGIONAL SBOC
GAINESVILLE AREA OFFICE
1010 Ridge Road
Gainesville, Georgia 30501
404-536-7984

HOW TO START AND MANAGE A BUSINESS (\$15.00)
Tuesday, May 10, 1988
7:00-9:30PM

AT: BRENAU COLLEGE
404-536-7984

TELEPHONE ETIQUETTE AND CHOOSING PHONE
SYSTEMS TO GROW WITH A BUSINESS (\$25.00)
Thursday, April 14, 1988
6:30-9:00PM

AT: NORTH GEORGIA TECH
404-536-7984

FUTURE ENTREPRENEUR'S DAY (\$25.00 for public;
no charge for North Georgia Tech students)
Tuesday, April 26, 1988
8:30 AM-3:00PM

AT: BRENAU COLLEGE
404-536-7984

HOW TO PREVENT SHOPLIFTING, AVOID BAD
CHECKS & CREDIT CARD FRAUD (\$25.00)
Tuesday, May 10, 1988
6:30-9:00PM

AT: GAINESVILLE AREA OFFICE
1010 Ridge Road
Gainesville, Georgia
404-536-7984

HOW TO START AND MANAGE A BUSINESS (\$15.00)
Tuesday, May 10, 1988
7:00-9:30PM

AT: LANIER TECH
7404)536-7984

FUTURE ENTREPRENEUR'S WORKSHOP (\$25.00) for public; (no
charge for Lanier Tech students)
Thursday, May 12, 1988
6:30-9:30PM

GEORGIA VETERANS LEADERSHIP
PROGRAM-VIETNAM VETERANS
(Direct Loan Program)
AT: PRESIDENTIAL HOTEL
4001 Presidential Pkwy.
at I-85 and I-285
off Chamblee-Tucker Road
Atlanta, GA
Andy Farris 393-1708
Ron Miller 565-8444

"SBA APPLICATION WORKSHOP"
Saturday, June 11, 1988
8:00AM to 4:30 PM
Registration: \$25.00
Lunch: \$9.50

IBM CORPORATION

(To be announced)

SMALL BUSINESS PLANNING TODAY FOR A PROFITABLE
TOMORROW (\$85)

Week of June 20th, 7:30AM-5:30PM (Day to be announced)

SOUTHERN BELL
AT: Radisson Hotel Atlanta
Courtland Street and
International Boulevard
Atlanta, Georgia
1-800-331-9046

SMALL BUSINESS: INCREASE PROFITS THROUGH MARKETING (\$99)
(Veterans \$49)
Thursday, June 9, and Friday, June 10, 1988, 9:30AM-7:00PM

MORRIS BROWN COLLEGE
643 M. L. K. Jr. Drive
Atlanta, GA 30314
MAKE RESERVATIONS
CALL 525-7831
Ext. 157, 159, 235

WORKSHOP ON SMALL AND MINORITY BUSINESS (\$10.00 both days)
Wed., Apr. 27, 1988, 1:00-5:00PM (for prospective owners)
Thurs., Apr. 28, 1988, 1:00-5:00PM (for business owners)

**APRIL - JULY 1988
SCORE - SBA
SMALL BUSINESS
SEMINARS - WORKSHOPS**

**MANAGEMENT ASSISTANCE
FOR THE SMALL BUSINESS**

PRE-BUSINESS WORKSHOPS
8:30 A.M. to 4:00 P.M.
Tuesday, Apr. 12, 1988
Tuesday, May 10, 1988
Tuesday, June 14, 1988

SEMINARS
7:00 P.M. to 9:30 P.M.
MONEY SOURCES FOR SMALL BUSINESS
Monday, Apr. 25, 1988

START-UP PLANS FOR SMALL BUSINESS
Monday, May 23, 1988

INTRODUCTION TO COMPUTERS IN BUSINESS
Monday, June 27, 1988

LOCATION
1720 Peachtree Road, N.W.
Room 197-199
Atlanta, Georgia 30309

DAYTIME - Free parking compliments of The Beer Mug Restaurant, 1705 Peachtree Rd., NW. Across street from 1720 Peachtree Rd.

EVENING - Free parking at 1720 Peachtree Road. enter building through rear double doors.

All programs provide special information for Veterans, Vietnam-Era Veterans and Handicapped Veterans. Facilities available for the handicapped.

Presented by
SCORE
SERVICE CORPS OF RETIRED EXECUTIVES
Co-Sponsored by
U.S. Small Business Administration

**HOW TO APPLY FOR AN
SBA GUARANTEED LOAN**

Regulations Procedures - Criteria
(**\$5.00 - Pay at the door**)

SEMINARS - 9:30 - 11:30 AM
FRIDAY - APRIL 8, 1988
FRIDAY - MAY 6, 1988
FRIDAY - JUNE 10, 1988

LOCATION

1720 Peachtree Road, NW
Room 197
Atlanta, Georgia 30309
(404) 347-2442

YOUR BUSINESS TAX PLANNING
Tuesday, April 5, 1988 9:00-12:00 AM
(**\$7.00 - Pay at the door**) Room 162

Special tax situations will be discussed to assist your tax filing requirements.

ABOUT SCORE

The Service Corps of Retired Executives (SCORE) is a national volunteer group of 12,000 men and women who have successfully completed their own active business careers and who now offer their help to both going and prospective small businesses. SCORE volunteers appreciate the contribution that small business is making to American free enterprise. They offer their talents and experience to those who need help.

Atlanta SCORE Chapter 48 has a membership of men and women who counsel several hundred clients each year at no charge. Attendance at 'going into business' workshops and evening seminars on specific business topics numbers over 1,000 participants annually.

Individual counseling sessions are available with SCORE counselors. We recommend that you follow up your participation in the workshops and seminars by discussing your own plans in detail with a counselor. There is no charge. Counselors are available at 1720 Peachtree Rd., N.W., Suite 600A Mondays through Fridays from 10:00 A.M. to 4:00 P.M. No appointment is necessary. You may call (404) 347-2442 for more details.

PRE-BUSINESS WORKSHOPS

8:30 A.M. to 4:00 P.M.

TUESDAY, APRIL 12, 1988, Rm. 162

TUESDAY, MAY 10, 1988, Rm. 197-99

TUESDAY, JUNE 14, 1988, Rm. 162

AGENDA

INTRODUCTION

Financial Factors and
Sources of Capital
Marketing

LUNCH (On Your Own)

Forms of Business Organization
Business Records - Regulations,
Taxes and Insurance

ADJOURN

The inherent uncertainty of the future makes it imperative that management use all information and every technique that can be of assistance in making decisions affecting future operations. The business owner/manager needs to acquire and continually upgrade his or her knowledge and skills so that he will have the best chance of success in today's highly competitive business world.

This course will provide the opportunity for the potential or newly self-employed business person to gain or increase expertise in managing his or her own business.

Experienced management executive specialists will conduct the sessions in each management area.

PROGRAM OBJECTIVES

1. To make the small business owner/manager aware of up-to-date ideas which will improve the effectiveness of his or her business operations.
2. To give practical techniques which will aid him or her in improving these ideas.
3. To prepare him or her to cope successfully with the many changes in the future economic environment.

SEMINARS

7:00 P.M. to 9:30 P.M.

MONDAY EVENING, APRIL 25, 1988

FINDING MONEY SOURCES FOR YOUR SMALL BUSINESS

Never enough money! You need capital to buy inventory, pay employees, pay taxes, meet operating expenses, and so forth. Do you understand the various sources of money available to you? How about capital generated internally? Capital available from trade creditors? Borrowed money? Sale of ownership interest? Do you know which source is best suited to the needs of your business? A financial plan will give you time to secure capital on the best possible terms before a crisis forces you into an emergency cash shortage.

MONDAY EVENING, MAY 23, 1988

START-UP PLANS FOR A SMALL BUSINESS

Starting a small business requires advance planning and a review of principles of successful management. Start-up capital and other financial requirements are key considerations. Commercial space needed, record keeping systems, business licenses, tax and legal requirements, credit policies, and market analysis are a few of the matters to be considered at this seminar.

MONDAY EVENING, JUNE 27, 1988

INTRODUCTION TO COMPUTERS IN BUSINESS

A computer and accounting professional with over 15 years experience in mainframe computers, minicomputers and microcomputers will discuss microcomputers in small businesses. The discussion will be oriented towards potential business microcomputer buyers and recent purchasers. Topics will include potential applications, the benefits to expect from a computer system, how to decide whether you need a computer, peripheral equipment, the computer purchasing decision, and the dollar and non-dollar costs of owning and using a business microcomputer system.

Small Business: The World Is Your Market

ATLANTA, GEORGIA

MARCH 24-25, 1988



U.S. Small Business Administration

1720 Peachtree Rd., N.W.

Suite 600

Atlanta, GA 30309

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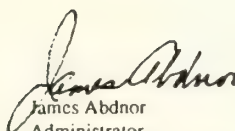
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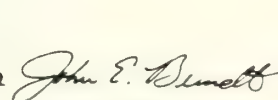
NATIONAL SUPPORTING ORGANIZATIONS
The Service Corps of Retired Executives (SCORE)
The U.S. Chamber of Commerce
The National Federation of Independent Businesses
The Burlington Northern Company
Health Industry Manufacturing Association

Dear Small Business Executive:

There is an urgent need to transfer the spirit of entrepreneurship into the global marketplace. Small business exporters hold the key to significantly reducing America's trade deficit. Participation by small business in new international markets will mean prosperity to thousands of small business owners and work for many Americans. Every one billion dollars in exports creates over 25,000 jobs. In response to these compelling facts, the Small Business Administration (SBA) has made promotion of exporting a top priority. AT&T recognizes the importance of small business in ensuring the continued growth and expansion of the American economy and is committed to supporting the SBA's export promotion efforts. In cooperation with AT&T, SBA has developed a series of trade forums to inform small business owners of the challenges and opportunities of trading outside our borders.

We hope that you will attend the International Trade Forum to learn how exports can increase your profits and why for *Small Business: The World Is Your Market*.


James Abdnor
Administrator
U.S. Small Business
Administration


John E. Berndt
Senior Vice President
AT&T International
Division

REGIONAL SPONSORS

AT&T, Southern Regional Office, Atlanta, Ga
SCORE Chapter #48, Atlanta, GA

We particularly thank the Georgia District of the U.S. & Foreign Commercial Service, the Georgia Department of Industry & Trade, the Atlanta Chamber of Commerce, SCORE Chapter #48 of Atlanta, the International Trade Development Center of the University of Georgia's Small Business Development Center, and SBA's Atlanta District Office for their assistance in the planning, execution and delivery of this conference.

HOTEL ACCOMMODATIONS:

Contact the Radisson Hotel Atlanta at (404) 659-6500. Be sure to mention the SBA-AT&T conference to obtain a special rate of \$85/night.

REGISTRATION INFORMATION:

Space is limited! Register early! Preregistration is \$85. On-site registration is \$99.

For more information contact your nearest SBA office or call
(404) 347-4948

Complete the "Registration Form" and "Course Pre-Selection" card. Return these with your check to:

"The World Is Your Market"
1720 Peachtree Rd. N.W.
Suite 600
Atlanta, GA 30309

Make checks payable to "SCORE Chapter 48". (No refunds will be issued after March 17.)

HANDICAPPED: Special arrangements will be made upon request.

-----AGENDA - THURSDAY, MARCH 24-----

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7:30 AM - Registration
7:45 AM - 8:30 AM Coffee & Continental Breakfast
8:30 AM - 9:20 AM Welcoming & Opening Session

"The World Is Your Market"
James Abdnor, Administrator,
U.S. Small Business Administration

9:30 AM - 10:30 AM Series I Courses
10:45 AM - 11:45 AM Series II Courses
12 NOON - 1:00 PM Luncheon

"The World of Exporting"
Judith Sans, President
Judith Sans Internationale

1:00 PM - 2:00 PM Series III Courses
2:15 PM - 3:15 PM Series IV Courses
3:30 PM - 4:30 PM Series V Courses
4:30 PM - 6:30 PM Reception And Exhibits*

-----AGENDA - FRIDAY, MARCH 25-----

7:30 AM - 8:30 AM Registration
8:30 AM - 9:30 AM Series VI Courses
9:45 AM - 10:45 AM Series VII Courses
11:00 AM - 12 NOON Series VIII Courses
12:15 PM - 1:15 PM Series IX Courses
1:15 PM - 2:45 PM Luncheon & Panel Session

"Successful Exporters"
Moderator: George Trabue, President
Eastman Chemical Products, Kingsport, TN

Panelists:

Cliff Hilburn, President
Hilburn Custom Marine
Tunnelhill, GA
Ralph Howard, President
Kleentex, Inc.
LaGrange, GA
Robert J. Broadwater, Senior Vice President(Retired)
Coca-Cola
Atlanta, GA
Michael Jones, President
HMA International
Business Development, Ltd.
Greensboro, N.C.

*Exhibits open from 12 Noon Thursday--4:30 PM Friday

THE CORE CURRICULUM

- A. "WHO CAN HELP?" - SOURCES OF EXPORT ASSISTANCE
P. Douglas Wexler, Associate, International Trade Consultants, Inc., Atlanta, GA
- B. "DIFFERENT STROKES..." - CULTURAL ASPECTS OF INTERNATIONAL TRADING
Gordon Harrison, President, World Technology Center, Marietta, GA
Pamela Mobley, Cross Cultural Manager, World Technology Center, Marietta, GA
- C. "WHERE IN THE WORLD?" - PERSPECTIVE ON THE WORLD MARKET
Carlos Martel, President, The Multisource Group Inc., Atlanta, GA
- D. DISTRIBUTION: FINDING BUYERS, AGENTS & DISTRIBUTORS
Scott Seydel, President, The Seydel Companies, Atlanta, GA
- E. INTERNATIONAL TELECOMMUNICATIONS: ITS IMPLICATIONS FOR SMALL BUSINESS
Brenda Pruett, Seminar Leader, Communications Planning Center - AT&T, San Francisco, CA
- F. DISTRIBUTION: EXPORT MANAGEMENT & TRADING COMPANIES
Eric Joiner, Vice President-Marketing, AJC International Inc., Atlanta, GA
- G. LEGAL ASPECTS OF INTERNATIONAL TRADE
William C. Poole, Chamberlain, Hrdlicka, White, Johnson & Williams, Attorneys-at-Law, Atlanta, GA
- H. ANSWERING INQUIRIES: PRICING & THE PRO-FORMA INVOICE
Treg S. Brown, Manager, Ernst & Whinney, Atlanta, GA
Essie Stewart, Air, Land, Ocean International Services, Atlanta, GA
- I. MINIMIZING FOREIGN PAYMENT RISKS
William S. Edwards, Vice President, First Wachovia Corporate Services, Atlanta, GA

SPECIAL INTEREST CURRICULUM

- J. **TRADE SHOWS & TRADE MISSIONS = SALES SUCCESS**
Mark Henricks, Henricks Technologies Inc., Atlanta, GA,
Frank Scheidler, Area Manager, Neptune International,
Atlanta, GA
- K. **JOINT-VENTURES & LICENSING OVERSEAS**
John E. Yates, Esq., Corporate/Technology Group, Morris,
Manning & Martin, Attorneys-at-Law, Atlanta, GA
- L. **FOCUSING ON INTERNATIONAL MARKETS:
ADVERTISING OVERSEAS**
Hugh Hyde, Jr., Vice President, Johnston International
Publishing Corp., New York City, NY
- M. **EXPORT LICENSING: COPING WITH THE RED TAPE**
Luba Czura, Corporate/Technology Group, Morris Manning, &
Martin, Attorneys at Law, Atlanta, GA
- N. **TRADEMARKS, PATENTS AND COPYRIGHTS
OVERSEAS**
Henry W. Jones, III, Corporate/Technology Group, Morris,
Manning & Martin, Attorneys-at-Law, Atlanta, GA
- O. **EXPORT MARKETING: THE U.S. & FOREIGN
COMMERCIAL SERVICE**
George Norton, Director, U.S. & Foreign Commercial Service,
Atlanta, Ga
- P. **REDUCING RISKS AND FACILITATING FINANCING:
REVIEW OF EXPORT/IMPORT BANK AND F.C.I.A.
SERVICES**
Gail Wilson, Assistant Vice President, The Frank B. Hall
Company of Georgia, Atlanta, Ga
Gerald D. Solomon, Senior Marketing Manager, Export-Import
Bank of the United States, Washington, D.C.
- Q. **SOURCES OF EXPORT WORKING CAPITAL**
William C. Cummins, Vice President-Trade Finance,
SouthTrust Bank of Alabama, Birmingham, AL
Marie Glover, Loan Officer, Finance Division, SBA District
Office - Atlanta, GA
- R. **TAX ADVANTAGES OF EXPORT: THE FOREIGN SALES
CORPORATION**
John Thornton, Vice President, Global Trade Associates Inc.,
Boston, MA
- S. **SELLING ABROAD IN FOREIGN CURRENCIES**
T. Edgar Vance, Regional International Trade Representative,
SCORE, Kingsport, TN
- T. **THE EXPORT INSTRUMENT: THE LETTER OF CREDIT**
Graham Martin, Manager-International Division, Barnett Bank
of Jacksonville, FL
- U. **ROUNDTABLE: EXCHANGE OF VIEWS ON TRADE
TOPICS**
Tom Watson, Industry Sector Advisory Committee on Small &
Minority Business for Trade Policy Matters
Carol Merck, SBA National Advisory Council
Duane Hunter, SBA Atlanta Regional Advisory Council
Fred Kress, Georgia District Export Council

WORLD MARKET CURRICULUM

- V. **TRADING WITH JAPAN**
Shusaku Hirano, Executive Director, Japanese
External Trade Organization (JETRO), Atlanta, GA
- W. **WORLD MARKETS FOR FOREST PRODUCTS**
Tom Hammet, Forest Products Specialist,
International Trade Center, Athens, GA
Don Jefferson, International Sales Manager,
T&F Hardwood, Inc. Milledgeville, GA
Rhett Willis, President, Construction Exports, Inc.,
Savannah, GA
- X. **WORLD MARKETS FOR SOFTWARE**
Don Nay, Trade Specialist, U.S. & Foreign
Commercial Service, Atlanta, GA
Charles Van Wickle, V.P.-Sales & Marketing, The
Brill Corporation, Norcross, GA
- Y. **TRADING WITH THE REPUBLIC OF KOREA**
Sung Ho Cho, Executive Director, Korean Trade
Promotion Center, New York, N.Y.
- Z. **TRADING WITH TAIWAN**
Tony Lee, Deputy Director, China External Trade
Development Corporation (CETDC) New York,
NY
- AA. **WORLD MARKETS FOR MEDICAL PRODUCTS**
Michael Jones, President, HMA International
Business Development Ltd., Greensboro, NC
- BB. **WORLD MARKETS FOR INDUSTRIAL
CHEMICALS, FIBERS & PLASTICS**
George Trabue, President, Eastman Chemical
Products, Kingsport, TN
- CC. **TRADING WITH THE UNITED KINGDOM**
Michael Jones, President, HMA International
Business Development Ltd., Greensboro, NC

APPENDIX H

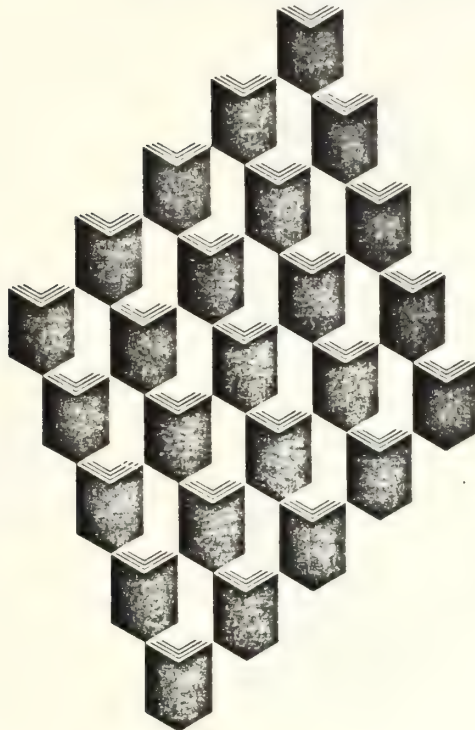
Section C

PUBLICATION LISTS

SBA

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Business Development Booklets

To Order: Complete the Order Form and check off requested publications. Send it with your check or money order to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Make check or money order payable to the **Superintendent of Documents**. Do not send postage stamps or cash. **These booklets are not sold by the Small Business Administration. Do not send payment for booklets to SBA.** If Business Development Pamphlets are also being ordered (Form 115A), send a **separate payment** to SBA for the pamphlets. Foreign remittances should be made by international money order payable to the Superintendent of Documents, by draft drawn in U.S. dollars on an American or Canadian bank located in the U.S. or Canada, or by UNESCO coupons. **Please note:** In accordance with U.S. Department of the Treasury regulations, checks drawn on Canadian banks for amounts of less than four U.S. dollars (\$4.00) cannot be accepted. This regulation also applies to Canadian money orders. If the value of your order is less than \$4.00, we suggest you charge your order to your MasterCard or VISA account. Please include your card number and date of expiration. Prices subject to change without notice.

Small Business Management Series

The books in this series discuss specific management techniques or problems.

No.

9. **Cost Accounting for Small Manufacturers**
Assists managers of small manufacturing firms establish accounting procedures that help control production and business costs
15. **Handbook of Small Business Finance**
20. **Ratio Analysis for Small Business**
25. **Guides for Profit Planning**
Guides for computing and using the breakeven point, the level of gross profit, and the rate of return on investment
29. **Management Audit for Small Manufacturers**
A questionnaire for manufacturers.
30. **Insurance and Risk Management for Small Business**
31. **Management Audit for Small Retailers**
149 questions to review business operations.
32. **Financial Recordkeeping for Small Stores**
33. **Small Store Planning for Growth**
Covers merchandising, advertising and display, and provides checklists to increase sales.
35. **Franchise Index/Profile**
Presents an evaluation process that may be used to investigate franchise opportunities
36. **Training Salesmen to Serve Industrial Markets**
37. **Financial Control by Time-Absorption Analysis**

No.

38. **Management Audit for Small Service Firms**
A questionnaire for service firms
39. **Decision Points in Developing New Products**
Provides a path from idea to marketing plan for the small manufacturing or R & D firm
41. **Purchasing Management and Inventory Control for Small Business**
42. **Managing the Small Service Firm for Growth and Profit**
43. **Credit and Collections for Small Stores**
44. **Financial Management: How to Make a Go of Your Business**

Starting and Managing Series

This series is designed to help the small entrepreneur "to look before leaping" into a business.

No.

1. **Starting and Managing a Small Business of Your Own**
101. **Starting and Managing a Small Service Business**
102. **Starting and Managing a Small Business from Your Home**
103. **Small Business Incubator Handbook: A Guide for Start-up and Management**

Nonseries Publications

A Basic Guide to Exporting

003-009-00349-1 (Commerce Dept.)

U.S. Government Purchasing and Sales Directory

A directory for businesses interested in selling to the U.S. Government. Lists the purchasing needs of various Agencies

045-000-00226-8

Managing for Profits

Discusses the various management functions

045-000-00206-3

Buying and Selling a Small Business

045-000-00164-4

Women Business Owners: Selling to the Federal Government

045-000-00229-2

Business Basics

Each of the 23 self-study booklets in this series contains text, questions, and exercises that teach a specific aspect of small business management.

No.

1001. The Profit Plan
1002. Capital Planning
1003. Understanding Money Sources
1004. Evaluating Money Sources
1005. Asset Management
1006. Managing Fixed Assets
1007. Understanding Costs
1008. Cost Control
1009. Marketing Strategy

Continued on Back Panel

Business Basics (continued)

No.	
1010	Retail Buying Function
1011	Inventory Management—Wholesale/Retail
1012	Retail Merchandise Management
1013	Consumer Credit
1014	Credit and Collections: Policy and Procedures
1015	Purchasing for Manufacturing Firms
1016	Inventory Management—Manufacturing/Service
1017	Inventory and Scheduling Techniques
1018	Risk Management and Insurance
1019	Managing Retail Salespeople
1020	Job Analysis, Job Specifications, and Job Descriptions
1021	Recruiting and Selecting Employees
1022	Training and Developing Employees
1023	Employee Relations and Personnel Policies

Prices shown were in effect in October 1985. Prices of Government publications are subject to change without notice and the prices charged on your order will be those in effect when your order is processed.

A 25-percent discount is given for quantities of 100 or more of the same publication to a single address. For foreign mailings, please add 25 percent to prices shown above.

The publications listed above may also be purchased from U.S. Department of Commerce field offices. If one is located in your city, consult your telephone directory for the address.

A companion form, SBA-115A, lists Business Development Pamphlets and is available without charge from SBA, P.O. Box 15434, Fort Worth, Texas 76119.

115B (2-87)

☆ U.S. GOVERNMENT PRINTING OFFICE : 1987-174-921

Order Form Check List**Small Business Management Series**

No.	Stock No.	Price
9	045-000-00162-8	\$6.00
15	045-000-00208-0	4.50
20	045-000-00150-4	4.50
25	045-000-00137-7	4.50
29	045-000-00151-2	4.25
30	045-000-00209-8	5.00
31	045-000-00149-1	4.50
32	045-000-00142-3	5.50
33	045-000-00152-1	5.50
35	045-000-00125-3	4.50
36	045-000-00133-4	2.50
37	045-000-00134-2	5.50
38	045-000-00203-9	4.50
39	045-000-00146-6	4.25
41	045-000-00167-9	4.50
42	045-000-00165-2	4.25
43	045-000-00169-5	5.00
44	045-000-00233-1	2.50

Starting and Managing Series

No.	Stock No.	Price
1	045-000-00212-8	\$4.75
101	045-000-00207-1	4.50
102	045-000-00232-2	1.75
103	045-000-00237-3	8.50

Nonseries Publications

	Stock No.	Price
_____	003-009-00349-1	\$6.50
_____	045-000-00226-8	5.50
_____	045-000-00206-3	5.50
_____	045-000-00164-4	5.00
_____	045-000-00229-2	2.75

Business Basics

No.	Stock No.	Price
1001	045-000-00192-0	\$4.50
1002	045-000-00193-8	4.50
1003	045-000-00194-6	4.75
1004	045-000-00174-1	5.00
1005	045-000-00175-0	2.75
1006	045-000-00176-8	4.75
1007	045-000-00195-4	3.25
1008	045-000-00187-3	4.75
1009	045-000-00188-1	4.75
1010	045-000-00177-6	4.50
1011	045-000-00190-3	4.50
1012	045-000-00178-4	4.75
1013	045-000-00179-2	4.50
1014	045-000-00180-6	4.75
1015	045-000-00181-4	4.75
1016	045-000-00182-2	4.75
1017	045-000-00183-1	4.75
1018	045-000-00184-9	4.50
1019	045-000-00189-0	4.75
1020	045-000-00185-7	4.50
1021	045-000-00186-5	4.50
1022	045-000-00191-1	4.50
1023	045-000-00196-2	4.50

THANK YOU

for your interest in the Small Business Administration. We are pleased to offer you our extensive library of business publications.

INFORMATION is power! It is an asset that can help overcome uncertainty and open new avenues for opportunity. **SUCCESS** in your business will depend on what you know and how well you apply what you have learned.

- In 1986, the SBA distributed over 6.2 million business publications to entrepreneurs like yourself.
- All SBA business publications are Easy-To-Read and provide Basic Information about starting, running or expanding a successful small business.
- The practical guidance found in these publications can provide you with knowledge about successful small business management.

Review the following publications and select those that can best satisfy your business needs.

SBA Directory of Business Development Publications

"Building Excellence In Enterprise"

U.S. Small Business Administration
Office of Business Development

FINANCIAL MANAGEMENT AND ANALYSIS

FM 1 ABC's OF BORROWING *

Some small business people cannot understand why a lending institution refused to lend them money. Others have no trouble getting funds but are surprised to find strings attached to their loans. Learn the fundamentals of borrowing....\$1.00.

FM 2 PROFIT COSTING AND PRICING FOR MANUFACTURERS

Uncover the latest techniques for pricing your products profitably....\$1.00.

FM 3 BASIC BUDGETS FOR PROFIT PLANNING *

This publication takes the worry out of putting together a comprehensive budgeting system to monitor your profits and assess your financial operations.....50¢.

FM 4 UNDERSTANDING CASH FLOW

In order to survive, a business must have enough cash to meet its obligations. This Aid shows the owner/manager how to plan for the movement of cash through the business and thus plan for future requirements.....\$1.00.

FM 5 A VENTURE CAPITAL PRIMER FOR SMALL BUSINESS

This best-seller highlights the venture capital resources available and how to develop a proposal for obtaining these funds.....50¢.

FM 6 ACCOUNTING SERVICES FOR SMALL SERVICE FIRMS

Sample profit/loss statements are used to illustrate how accounting services can help expose and correct trouble spots in a business' financial records.....50¢.

FM 7 ANALYZE YOUR RECORDS TO REDUCE COSTS

Cost reduction IS NOT simply slashing any and all expenses. Understand the nature of expenses and how they inter-relate with sales, inventories, and profits. Achieve greater profits through more efficient use of the dollar.....50¢.

* — DENOTES OUR BEST-SELLERS !

FM 8 BUDGETING IN A SMALL BUSINESS FIRM

Learn how to set up and keep sound financial records. Study how to effectively use journals, ledgers and charts to increase profits.....50¢.

FM 9 SOUND CASH MANAGEMENT AND BORROWING

Avoid a "cash crisis" through proper use of cash budgets, cash flow projections and planned borrowing concepts.....50¢.

FM 10 RECORDKEEPING IN A SMALL BUSINESS *

Need some basic advice on setting up a useful recordkeeping system? This publication describes how....\$1.00.

FM 11 BREAKEVEN ANALYSIS: A DECISION MAKING TOOL

Learn how "breakeven analysis" enables the manager/owner to make better decisions concerning sales, profits and costs....\$1.00.

FM 12 A PRICING CHECKLIST FOR SMALL RETAILERS

The owner/manager of a small retail business can use this checklist to uncover proven pricing strategies that can lead to profits.....50¢.

FM 13 PRICING YOUR PRODUCTS AND SERVICES PROFITABLY

Discusses how to price your products profitably, how to use the various techniques of pricing and when to use these techniques to your advantage....\$1.00.

GENERAL MANAGEMENT AND PLANNING

MP 1 EFFECTIVE BUSINESS COMMUNICATIONS

Explains the importance of business communications and how they play a valuable role in business success.....50¢.

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MP 2 LOCATING OR RELOCATING YOUR BUSINESS

Learn how a company's market, available labor force, transportation and raw materials are affected when selecting a business location....\$1.00.

MP 3 PROBLEMS IN MANAGING A FAMILY-OWNED BUSINESS

Specific problems exist when attempting to make a family-owned business successful. This publication offers suggestions on how to overcome these difficulties....50¢.

MP 4 BUSINESS PLAN FOR SMALL MANUFACTURERS

Designed to help an owner/manager of a small manufacturing firm. This publication covers all the basic information necessary to develop an effective business plan....\$1.00.

MP 5 BUSINESS PLAN FOR SMALL CONSTRUCTION FIRMS

This publication is designed to help an owner/manager of a small construction company pull together the resources to develop a business plan....\$1.00.

MP 6 PLANNING AND GOAL SETTING FOR SMALL BUSINESS *

Learn how to plan for success....50¢.

MP 7 FIXING PRODUCTION MISTAKES

Structured as a checklist, this publication emphasizes the steps that should be taken by a manufacturer when a production mistake has been found....50¢.

MP 8 SHOULD YOU LEASE OR BUY EQUIPMENT?

Describes various aspects of the lease/buy decision. It lists advantages and disadvantages of leasing and provides a format for comparing the costs of the two....50¢.

MP 9 BUSINESS PLAN FOR RETAILERS

Learn how to develop a business plan for a retail business....\$1.00.

MP 10 CHOOSING A RETAIL LOCATION

Learn about current retail site selection techniques such as demographic and traffic analysis. This publication addresses the hard questions the retailer must answer before making the choice of a store location....\$1.00.

MP 11 BUSINESS PLAN FOR SMALL SERVICE FIRMS

Outlines the key points to be included in the business plan of a small service firm....50¢.

MP 12 GOING INTO BUSINESS *

This best-seller highlights important considerations you should know in reaching a decision to start your own business. It also includes a checklist for going into business....50¢.

MP 13 FEASIBILITY CHECKLIST FOR STARTING YOUR OWN BUSINESS

Helps you determine if your idea represents a real business opportunity. Assists you in screening out ideas that are likely to fail before you invest extensive time, money and effort in them....\$1.00.

MP 14 HOW TO GET STARTED WITH A SMALL BUSINESS COMPUTER

Helps you forecast your computer needs, evaluate the alternative choices and select the right computer system for your business....\$1.00.

MP 15 THE BUSINESS PLAN FOR HOMEBASED BUSINESS *

Provides a comprehensive approach to developing a business plan for a homebased business. If you are convinced that a profitable home business is attainable, this publication will provide a step-by-step guide to develop a plan for your business....\$1.00.

MP 16 HOW TO BUY OR SELL A BUSINESS

Learn several techniques used in determining the best price to buy or sell a small business....\$1.00.

MP 17 PURCHASING FOR OWNERS OF SMALL PLANTS

Presents an outline of an effective purchasing program. Also includes a bibliography for further research into industrial purchasing....50¢.

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MP 18 BUYING FOR RETAIL STORES

Discusses the latest trends in retail buying. Includes a bibliography that references a wide variety of private and public sources of information on most aspects of retail buying....\$1.00.

MP 19 SMALL BUSINESS DECISION MAKING

Acquaint yourself with the wealth of information available on management approaches and techniques to identify, analyze and solve business problems....\$1.00

MP 20 BUSINESS CONTINUATION PLANNING

Provides an overview of business owners' life insurance needs that are not typically considered until after the death of one of the business' principal owners....\$1.00.

MP 21 DEVELOPING A STRATEGIC BUSINESS PLAN *

Helps you develop a formal strategic plan of action for your small business....\$1.00

MP 22 INVENTORY MANAGEMENT

Discusses the purpose of inventory management, types of inventories, recordkeeping and forecasting inventory levels....50¢.

MP 23 TECHNIQUES FOR PROBLEM SOLVING

Instructs the small business person on the key techniques of problem solving and problem identification, as well as designing and implementing a plan to correct these problems....\$1.00

MP 24 TECHNIQUES FOR PRODUCTIVITY IMPROVEMENT

Learn how to increase worker output through motivating "quality of work life" concepts and tailoring benefits to meet the needs of the employees....\$1.00.

MP 25 SELECTING THE LEGAL STRUCTURE FOR YOUR BUSINESS

Discusses the various legal structures that a small business can use in setting up its operations. It briefly identifies the types of legal structures and lists the advantages and disadvantages of each....50¢.

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MP 26 EVALUATING FRANCHISE OPPORTUNITIES

Although the success rate for franchise-owned businesses is significantly better than start-up businesses, success is not guaranteed. Learn how to evaluate franchise opportunities and select the business that's right for you....50¢.

CRIME PREVENTION**CP 1 REDUCING SHOPLIFTING LOSSES**

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APPENDIX H

Section D

SAMPLE PUBLICATIONS

How to operate a business legally in Georgia

Almost everyone who starts a new business is aware that a business license is necessary to operate in Georgia, but what other legal requirements does the state and federal government have? What does the owner need to know about withholding tax, building occupancy permits and sales and use tax?

Finding out this information can be difficult, since it means talking to several different agencies at the federal, state and local levels. This information is not all-inclusive and should not be considered a substitute for legal assistance from a qualified attorney. Also, since the requirements are subject to change, prospective businesspeople should contact the individual departments for the latest information.

Probably the best place to start in assimilating all this information is with the business license. Everyone is generally aware of the need for one, but not everyone knows where to get it. If located within an incorporated city limit, a license must be obtained from the city; if outside the city limits, then from the county.

Business Licenses:

City of Atlanta — 658-6323
City of Decatur — 377-9911
City of Jonesboro — 478-7407
City of Lawrenceville — 963-2414
City of Marietta — 429-4281
Clayton County — 477-3565
Cobb County — 426-3611
DeKalb County — 371-2461
Fulton County — 572-3226
Gwinnett County — 995-6480

Also, those who are planning to occupy a new building or use an existing one for a new business, may have to apply for a Certificate of Occupancy from the appropriate city or county zoning department.

Planning and Zoning Departments:

City of Atlanta — 658-6336
Clayton County — 477-3678
Cobb County — 429-7000
DeKalb County — 371-2155
Fulton County — 586-4930
Gwinnett County — 995-2600

Businesses involved in food processing or

grocery sales need a food sales establishment license from the Georgia Department of Agriculture before starting. An inspection is also required and may be requested by phone. An application for business will be accepted if the inspection shows that the establishment meets the department's requirements. Help can be obtained from the Department of Agriculture in preparing for the inspection. It is advised that business owners contact the department before investing in any renovation, equipment or plans. For information, contact: Georgia Department of Agriculture, Consumer Protection Division, Field Forces Office, Agriculture Building, Room 648, Atlanta, Ga. 30334; 656-3627.

Firms engaged in cooking or preparation of food to be served, including restaurants, hotels and nursing homes, are licensed by the county environmental health departments.

Environmental Health Departments:

Clayton County — 477-8445
Cobb County — 423-4803
DeKalb County — 292-1979
Fulton County — 572-2255
Gwinnett County — 963-5132

Categories of business that concern the public interest also are subject to special permits, licensing and inspection. This includes schools, nurseries, motor transport, public entertainment, employment agencies, securities dealers and financial institutions. Contact the State of Georgia Information Line at 656-2000 for the number of the correct agency.

Businesses which sell alcoholic beverages must have a state alcoholic beverage license and a local license which is obtained from either the city or county in which the store is located. The application forms for the licenses must be completed before the business is opened. Local authorities and the Department of Revenue can be of assistance in preparing the application. For information and application forms from the state contact: Department of Revenue, Alcohol and Tobacco Unit, 801 Trinity-Washington Building, Atlanta, Ga. 30334; 656-4260.

Taxes cannot be ignored, of course. Business owners are required by law to withhold the following from the wages paid to employees: federal income taxes, state income taxes and FICA (Social Security) insurance.

Income taxes will also be levied by the federal and state governments on earnings of any business. Therefore, each business must file an income tax return with both agencies. Businesses may be required to file estimated tax returns and pay estimated taxes on a quarterly basis.

For federal tax information, contact: U.S. Internal Revenue Service, 275 Peachtree Street N.E., Atlanta, Ga. 30303; 522-0050. State tax information can be obtained from: Georgia Department of Revenue, Georgia Income Tax Division, P.O. Box 38067, Atlanta, Ga. 30334; 656-4180.

If you plan to own a business in Georgia, the door is wide open. But first, think about complying with the numerous regulations. You must conform to the rules, or your business will have its door slammed in a hurry.

The IRS has a number of publications that are available upon request to small businesses. One of the most helpful is *Your Business Tax Kit*, which includes data and forms for a Federal Employer Identification Number and a tax guide for small businesses. That can be ordered by calling Forms and Publications at 1-800-424-3676 or through a visit to the I.R.S. office.

In Georgia there is a 3 percent sales and use tax which applies to the retail purchase, retail sale, rental, storage, use or consumption of tangible personal property and certain services. In other words, sales tax must be collected on just about every tangible item sold, except for the exempt categories of prescription drugs, eyeglasses and contact lenses.

A sales tax number is required for each business before opening. The number plus instructions for collecting, reporting and remitting the money to the state on a monthly basis can be obtained from: Georgia Department of Revenue, Sales and Use Tax Division, Registration Section, 310 Trinity-Washington Building, Atlanta, Ga. 30334; 656-4060.

In addition, some of the metro Atlanta counties have exercised local option issues to increase their sales and use tax to pay for certain civic projects. In Cobb, Gwinnett and DeKalb Counties the sales tax is 4 percent, while in Fulton it's 5.

Businesses are required by the state to pay unemployment insurance tax if the company has one or more employees for 20 weeks in a calendar year or it has paid gross wages of over \$1,500 in a calendar quarter. The taxes are payable at a rate of 2.7 percent on the first \$7,500 in annual wages of an employee. Unemployment insurance must be reported and returns made to the state. For information, contact: Georgia Department of Labor, Adjudication Section, Sussex Place, 148 International Blvd., Room 727, Atlanta, Ga. 30303; 656-5590.

If a business employs three or more, workers' compensation insurance must be carried to provide protection to those injured in on-the-job accidents. The State Board of Workers' Compensation aids people who need claims assistance. For information on how to obtain the insurance, contact: State Board of Workers' Compensation, Suite 1000, South Tower, 1 CNN Center, Atlanta, Ga. 30303-2705; 656-3875.

Every owner needs to be aware of the federal and state laws concerning minimum wages. Even if a business is not covered by federal minimum wage laws, it is still subject to the Georgia requirements. Federal information can be obtained from: U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division, Room 105, 1371 Peachtree St. N.E., Atlanta, Ga. 30367; 347-2818. Georgia information comes from: Georgia Department of Labor, Inspection Division, I.B.E.W. Building, Room 525, 501 Pulliam St. S.W., Atlanta, Ga. 30312; 656-3018.

Incorporating a business allows a firm to take advantage of the limited liability of a corporation. A corporation is usually a taxpayer separate from its owners, unless the company decides it wants to be an "S" corporation for special tax consideration. Contact an attorney or accountant for information on just what each designation can mean to the firm.

Legal assistance will be needed to incorpo-

rate. Basically, this involves checking with the Secretary of State to see if the name chosen for the business is available. Typed Articles of Incorporation must then be submitted, along with a fee. Additionally, a notice of incorporation must be published in the official legal newspaper for the county. There is also a fee for this printing. Each business must submit a consent from a person who will act as registered agent for service of process on the corporation. This consent must be filed along with the Articles of Incorporation. The Articles must name at least three directors, unless the corporation will have two or fewer shareholders. For more information, contact: Secretary of State, Corporations Division, 306 West Tower, Floyd Building, Two Martin Luther King Jr. Drive S.E., Atlanta, Ga. 30334; 656-2185.

Trademarks and service marks may be registered under federal laws or state laws. In Georgia, an application form should be filed, along with a \$15 fee and copies of the trademark or service mark. Registration is then good for 10 years. In Georgia, contact: Special Services Division, Secretary of State, Corporations Division, 306 West Tower, Floyd Building, Two Martin Luther King Jr. Drive S.E., Atlanta, Ga. 30334; 656-2861. For federal information, contact: U.S. Department of Commerce, Trademark Office, 2021 Jefferson Davis Highway, Arlington, Va. 22202; (703) 557-3881.

Businesses that use any name other than the owner's, must register this fictitious name with the county as required by the Trade Name Registration Act. This registration requirement does not apply to corporations doing business under their corporate names or to those practicing any profession under a partnership name. For information, contact the Clerk of the Superior Court for the county in which the business is located.

Clerk of the Superior Court:
Clayton County — 477-3389
Cobb County — 429-3110
DeKalb County — 371-2836
Fulton County — 572-2411
Gwinnett County — 962-1595

And last but not least, if an established business is to be bought, the purchaser must comply with the Bulk Sales Law. This law requires that at least five days before the actual purchase, each creditor must be personally notified of the proposed sale. In counties of more than 200,000 population, this intent must be published at least one time in the county legal newspaper not less than seven days prior to completion of the purchase. An attorney should be consulted about this procedure.

Small Business Directory

Starting a business is a tremendous responsibility, but the load be lightened by taking advantage of the many resources available to small-business people in the metro Atlanta area. These resources are too numerous to describe in detail, but in addition to the SBA, it includes the Small Business Development Centers, and the Service Corps of Retired Executives.

Listed here is a telephone directory for more information for the small-business person.

Government Agencies

Department of Commerce — 347-4873
U.S. Government Bookstore — 331-6947
Federal Information Center — 331-6891
Georgia Department of Industry & Trade — 656-3545
Small Business Administration — 347-2441
Chambers of Commerce
Atlanta — 586-8400
Clayton — 478-6549
Cobb — 980-2000
DeKalb — 378-8000
Gwinnett — 963-5128

Management/Technical Assistance

Atlanta Economic Development Corporation (AEDC) — 658-7000
Business Council of Georgia — 223-2264
Georgia Tech's Economic Development Laboratory — 894-3841
National Federation of Independent Business (NFIB) — 876-8516
Atlanta Regional Commission — 656-7715

Minority Business Development

Atlanta Business League — 584-8126
Atlanta Minority Business Development Center — 586-0973
National Alliance of Business (NAB) — 522-9350
Office of Minority Business Development Agency — 347-4091
Startups and Expansions
GA Department of Community Affairs (DCA) — 656-3836
GA Tech's Advanced Technology Development Center (ATDC) — 894-3575
GA Vietnam Veterans Leadership Program (GVVLP) — 565-8444
Greater Atlanta Small Business Project (GRASP) — 572-2897
Service Corporation of Retired Executives (SCORE) — 347-2441
GA Tech's Procurement Counseling Center — 894-6121

Small Business Development Centers

Georgia State University — 651-3551
Kennesaw College — 423-6450
Clayton State College — 961-3440
Covington Technical School — 963-4902

Miscellaneous

Better Business Bureau — 688-4910
Credit Bureau of Atlanta — 329-1701
Dun & Bradstreet — 436-7222
NCR Corporation — 321-8800

U.S. Small Business Administration
Management Assistance
Support Services

Management Aids
Number 2.008

SBA

Business Plan for Small Construction Firms



Summary

A business plan can provide the owner-manager or prospective owner-manager of a small construction firm with a pathway to profit. This Aid is designed to help an owner-manager in drawing up a business plan.

In building a pathway to profit you need to consider the following questions: What business am I in? What do I sell? Where is my market? Who will buy? Who is my competition? What is my sales strategy? How much money is needed to operate my firm? How will I get the work done? What management controls are needed? How can they be carried out? When should I revise my plan? Where can I go for help?

No one can answer such questions for you. As the owner-manager you have to answer them and draw up your business plan. The pages of this Aid are a combination of text and workspaces so you can write in the information you gather in developing your business plan—a logical progression from a commonsense starting point to a commonsense ending point.

A Note On Using This Aid

It takes time and energy and patience to draw up a satisfactory business plan. Use this Aid to get your ideas and the supporting facts down on paper. And, above all, make changes in your plan on these pages as that plan unfolds and you see the need for changes.

Bear in mind that anything you leave out of the picture will create an additional cost, or drain on your money, when it unexpectedly crops up later on. If you leave out or ignore too many items, your business is headed for disaster.

Keep in mind, too, that your final goal is to put your plan into action. More will be said about this step near the end of this Aid.

What's In This For Me?

The hammer, trowel, pliers, and wrench are well known tools of the construction industry. They have their various uses and are needed to get the work done. Management is another tool that the owner-manager of a construction firm must use. Each job must be planned and organized if the firm is to run smoothly and efficiently. The business plan will help you increase your skill as a manager.

2

Because of the diversification in the construction industry, you may be engaged in residential, commercial, or industrial construction. You may be either a general or specialty contractor. But, the same basic managerial skills are needed. This plan will serve as a guide to the various areas that you as a manager will be concerned with. As you work through this plan, adapt it to your own particular needs.

When complete, your business plan will help guide your daily business activities. When you know where you want to go, it is easier to plan what you must do to get there. Also, the business plan can serve as a communications device which will orient key employees, suppliers, bankers, and whoever else needs to know about your goals and your operations.

Whether you are just thinking about starting your own firm or have already started, the business plan can help you. As your skill as a manager increases so will the number of jobs you can effectively control. The careful completion of this plan may point out your limitations. This is important. To be a successful contractor you must not only know your business thoroughly, but must also know your limitations and seek professional advice in these areas.

Why Am I In Business?

Most contractors are in business to make money and be their own boss. Very important reasons. But, don't forget, no one is likely to stay in business unless you also satisfy a consumer need at a competitive price. Profit is the reward for satisfying consumer needs in a competitive economy.

In the first years of business, your profits may seem like a small return for the long hours, hard work, and responsibility of being the boss. But there are other rewards associated with having your own business. For example, you may find satisfaction in helping to put groceries on your employees' tables. Or, maybe your satisfaction will come from building a business you can pass on to your children.

Why are you in business? _____

What Business Am I In?

At first glance this may seem like a rather silly question. You may say, "If there is one thing I'm sure of, it's what business I'm in." But wait. Let's look further into the

question. Suppose you say, "I build houses." Are you a speculative or custom builder? Are you a remodeler? Are you a subcontractor? Can you schedule a complete job and make money? By planning according to this decision, you should realize the value of this type of thinking in dollars.

Consider this example. Bob Rogers* started a small construction business shortly after World War II. Because of Mr. Rogers' skill and talent for design, he directed all his activity toward building taverns. There was enough call for this type of building to keep him and his crew busy until the early 60's. Then sales began to fall off.

By moving his shop to smaller quarter with less overhead and by laying off half his crew, he was able to maintain his business to his satisfaction the rest of his life. After his death, his son examined the situation and decided that he wasn't really in the business of building commercial bars. He was in the business of custom finishing.

Today his business is prospering. He is building cabinets and small bars for private homes. His company also does other finishing work which requires the craftsmanship his crew is capable of.

In the space below, state what business you're really in.

What are your reasons for this opinion?

Marketing

When you have decided what sort of construction business you're really in, you have made your first marketing decision. Now, in order to sell your service or product, you must face other marketing decisions.

Your marketing objective is to find enough jobs at the right times to provide a *profitable continuity* for your business. Your job starts must be coordinated to eliminate the down time between jobs. In other words, you want to get enough jobs, starting at the right times, to keep from being broke between jobs.

Unless an individual can come up with enough ideas to keep a crew working 12 months a year, maybe he or she is not ready for a construction business.

*All names in Aids are fictitious.

Where Is Your Market?

Describe your market area in terms of customer profile (age, school needs, income, and so on) and geography. For example, if you are a custom builder, you may decide to build homes in the \$80,000 to \$130,000 price range. This would mean that your customers will have to have incomes in the middle to upper-middle class ranges. You may also decide that you can profitably build these homes on the owner's lot if it is located within a radius of 30 miles from your office. (The significance of a customer profile is that it will help you narrow your advertising to those media that will reach the potential customer you have profiled.) In the space below describe your market in terms of customer profile and geography.

My Product Types of Customers Location of Customers

Now that you have described what you want in terms of customer and location, what is it about your operation that will make these people want to buy your service? For instance, quality work, competitive prices, guaranteed completion dates, effective advertising, unique design, and so on.

Write your answer here.

Advertising

You have determined what it is you're marketing, who is going to buy it, and why they're going to buy it. Now you have to decide on the best way to tell your prospective customers about your product.

What should your advertising tell prospective customers?

What form should your advertising take? Ask the local media (newspapers, radio and television stations, and printers of direct mail pieces) for information about their services and the results they offer for your money.

How you spend advertising money is your decision, but don't fall into the trap that snares many advertisers. As one consultant describes this pitfall: It is amazing the way many business managers consider themselves experts on advertising copy and media selection without any experience in these areas.

The following workbook should be useful in determining what advertising is needed to sell your construction service.

Form of Advertising	Size of Audience	Frequency of Use	Cost of A single ad	Estimated Cost
_____	_____	_____ x	\$ _____	- \$ _____
_____	_____	_____ x	\$ _____	- \$ _____
_____	_____	_____ x	\$ _____	- \$ _____
_____	_____	_____ x	\$ _____	- \$ _____
Total \$				_____

Competition

The competition in the construction industry often results in low profit margins. However, if you are just starting or are a relatively small firm, this does not put you at a disadvantage. The smaller firm can often compete with the bigger outfit because of lower overhead expense. For example, your office may be in your home, saving that expense. You can often work right out of your truck, saving the expense of a field office.

Competition is largely price competition, although a good reputation for quality and efficiency is beneficial. But, the result of any competition is a high failure rate for poor planners and poor performers. This points out the need for careful planning, particularly in the areas of estimating and bidding.

In order to see what you are up against competition-wise, answer the following questions so you can plan accordingly.

Who will be your major competitors? _____

How will you compete against them? _____

Sales Strategy

The market for the construction industry is unique in many ways. As a contractor you will find your market to be dependent on such variables as the state of the economy, local employment stability, the seasonality of the work, labor relations, good subcontractors and interest rates. Also, as a contractor, you will find that you are unavoidably dependent on others, such as customers or financing institutions for payment, and other contractors for performance of their work. You will also want to take your cash flow into consideration when you estimate and bid on a job. The money must come in time to meet your own obligations.

Estimating

Whether an owner-manager in the construction business succeeds—makes a profit or not—depends to a great extent on bidding practices. Therefore, you must make careful and complete estimates.

Many of the more successful contractors attribute their success to their estimating procedures. They build the job on paper before they submit a bid. In doing this, they break the job down into work units and pieces of material. Then, they assign a cost to each item. The total of these costs will be the direct construction cost. You must also figure on the indirect costs of a job. For instance, you will have overhead expenses such as the cost of maintaining your office, trucks, license fees, and so on. The estimate should also consider any interest charges you will pay on money you borrow to get the job under way. You have insurance fees to pay, surety bond premiums, travel expenses, advertising costs, office salaries, lawyer's fees, and so on. These must also be paid out of your gross income.

Trade associations, as one of their services, often provide their members with a package of business forms. The cost estimate form would be included in this package. The obvious advantage in using these forms is that they are specifically designed for the particular trade.

Regardless of what estimate form you use, it should include such headings as "activity," "material," "labor," "subcontracts," and "estimated cost." And it should have areas for direct construction costs, indirect construction costs, overhead, and profit.

In addition, a column for the actual cost compared to the estimated cost of a specific work item will make this form an invaluable record. Here you would have a handy reference to evaluate the profitability of a job after it is complete. It would show you where your estimate was high or low, and enable you to adjust future bids on similar projects. This added column will also be necessary when it comes time for your financial accounting.

Bidding

Your decision to bid or not to bid on a particular job should be determined by several factors. First, do you have the capacity to complete the job on schedule and according to specifications. Beware of overextending yourself out of business. You have to operate within your known capabilities. On any job, you must follow all the details of the work yourself, or find competent supervision.

Bonding

The practice of bonding has been a traditional way of life for anyone engaged in contract construction. Bonding companies provide bonds for a certain percentage of the contract price. There are three main types of bonds:

- (1) Bid bonds assure that the bidder is prepared to perform the work according to the terms of the contract if successful in the bid.
- (2) Performance bonds assure completion of the job according to plans and specifications.
- (3) Payment bonds assure anyone dealing with the bonded contractor that they will be paid.

The effect that bonding companies have had on contractors is evident in the area of competition. The customer, by requiring that the contractor is bonded, is more or less assured of adequate completion of the job. Therefore, contractors are compared on a basis of price. Also, banks are often more lenient to bonded contractors.

Bonding companies usually require the contractor to have proven experience and the organizational financial capacity to complete the project. This can be a real stumbling block to the new construction firm.

With the widespread use of bonding requirements, the competition that is generated often leads the inexperienced contractor to submit bids that are unrealistically low. One or two such mistakes often can spell bankruptcy.

Will you need bonding _____ often, _____ occasionally, _____ seldom?

Where will you get your bond? _____

What will the terms be? _____

The Small Business Administration has a surety bond program designed to help small and emerging contractors who might have previously been unable to get bonding. SBA is authorized to guarantee up to 90 percent of losses incurred under bid, payment, or performance bonds on contracts up to \$500,000. Application for this assistance is available from any SBA field office.

Planning the Work

When your marketing efforts result in jobs to be done, the problem becomes one of production. How will you plan the work so that the job gets done on time?

No matter how you plan the work, your plan should assist you in two specific ways: (1) it should help you maintain your production schedule, and (2) it should allow you to adjust production to meet changed conditions, such as bad weather.

In planning the work, keep in mind two things: (1) the timing of starts, and (2) the timing of the various steps in the construction of your company. If you have sufficient help and sufficient supervisory personnel, it will be possible for you to engage in as many projects as you can control. The size and nature of the job must be considered here also.

The timing of the steps of constructions (the work scheduling) will show the various operations in sequence and assign a working day designation to each with a space for the calendar day designation. Several operations may be in progress simultaneously. Such a work schedule will show at a glance whether the work is progressing at the right time. Many companies offer commercial scheduling boards designed for this purpose.

Below is a partial work schedule to demonstrate how yours may be set up. Note that there is a column that can be filled in with either a solid mark or an "X" to indicate either partial or completed work. When you look at a particular calendar day, an "X" next to it would indicate that you're on schedule. An open square indicates a delay. Here, then, is a convenient way to see trouble spots that are causing delays and it gives you an opportunity to take corrective action.

Working Day

Activity	Start	Finish	Calendar Day	Complete
1. Layout	1	1	15	<input checked="" type="checkbox"/>
2. Foundation Forms	1	2	16	<input checked="" type="checkbox"/>
3. Foundation Pour	3	3	19	<input checked="" type="checkbox"/>

(indicates $\frac{3}{4}$ complete)

You should save your work schedules. They will form the basis for future estimates. For example, if you are estimating a particular job, you have information on the steps of production, an indication of what materials you'll need and when you'll need them, an indication of how long the job will take, and any peculiarities that may affect the completion of the job. When you consider all these things, you'll be more likely to submit an accurate bid.

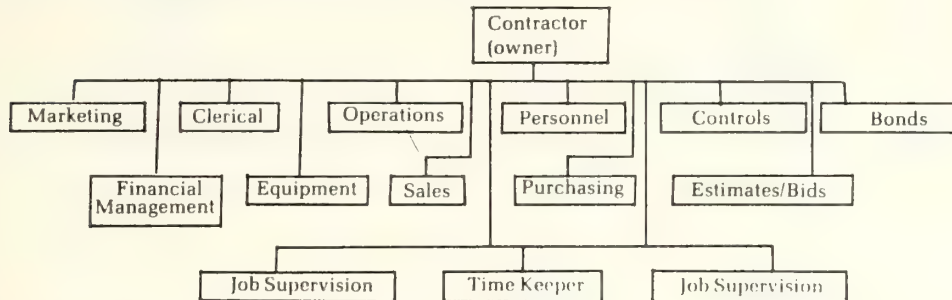
By carefully keeping such records, you will also have an indication of how many workers you will need. Perhaps, if the work falls behind schedule, you may need to bring more workers to the job to assure scheduled completion and avoid a possibly larger financial loss from penalization, if that is called for in your contract. Also, such records will give you an indication of the organizational structure you may need for your firm.

company grows you will not be able to do all the work. You have to delegate work, responsibility, and authority. The organization chart is a useful device in getting this done. It shows quite clearly who is responsible for the major activities of your business.

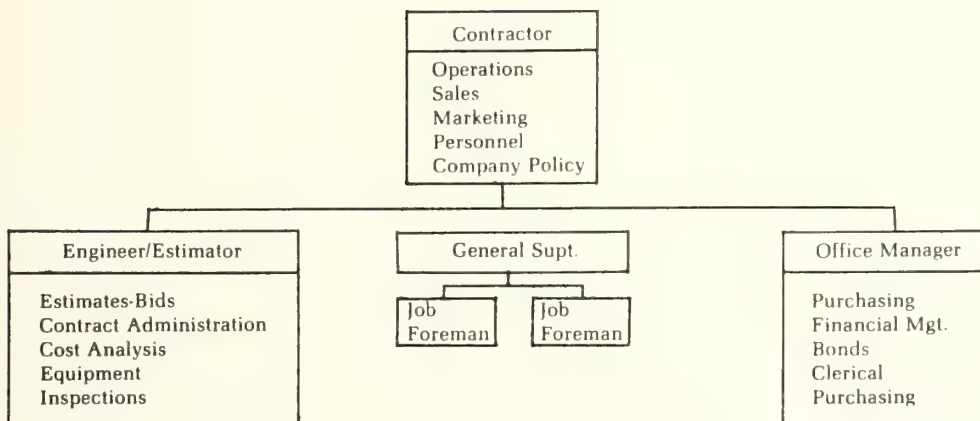
At first, many construction companies are one man shows. It is up to the owner to do almost everything. In this case the organization chart might look something like this:

Getting the Work Done

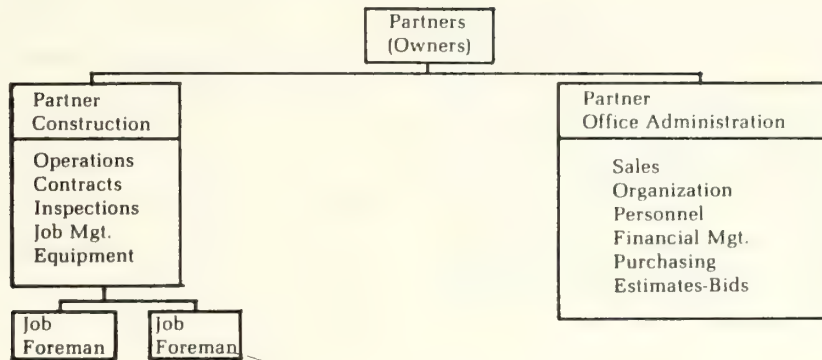
If your firm is going to run efficiently, you will need organization. Organization is essential because as your



As the company grows, perhaps specialists are added, such as an engineer/estimator, an office manager, and a general superintendent. The organization chart then begins to look something like this:



Often, people with complementary experience and skills, such as work experience and office experience will form a partnership. The organization chart will look like this:



Draw an organization chart for your company.

What are Your Personnel Requirements?

Will you carry a permanent crew or hire workers as the need arises? _____

Will you use union or nonunion labor? _____

How many workers will you need? _____

What is the hourly rate you will pay? _____

What will fringe benefits cost? _____

Will you supervise the work yourself or hire a foreman? _____

If you hire a foreman, what will this salary be? _____

Will you need clerical help? _____ What will it cost? _____

Equipment

What special equipment will you need (assuming that your work force will supply their own hand tools)?

Equipment	Rent	Buy	Your Cost
_____	_____	_____	\$ _____
_____	_____	_____	\$ _____
_____	_____	_____	\$ _____
_____	_____	_____	\$ _____
_____	_____	_____	\$ _____

Will you need an office or use your home? _____

If you will need an office, what will the rent and other expenses cost? _____

Put Your Plan Into Dollars

Just as with the other aspects of managing a construction business, the basic unit of financial management is the job. The financial aspects of a job must be planned

8

as carefully as the actual construction. The payment for each job must cover the direct and indirect construction costs as well as the allocated share of overhead.

Accounting requirements will vary from company to company and from trade to trade. Your accountant will help you set up the accounting system which will best meet your needs.

However, you must make the overall plans yourself. You must develop the goals necessary to guide and manage your business. This overview will prove invaluable in establishing a good working relationship with your banker (or other lender) and bonding company.

In your financial planning, the first consideration is where the dollars will come from. In dollars, how much business (sales) will you be able to do in the next 12 months? \$ _____

Expenses

In connection with annual sales volume, you need to think about expenses. For example, if you plan to do \$100,000 worth of work, how much will it cost you to do this amount of business? And even more important, what will be left over as profit at the end of the year?

Profit is your pay. Even if you pay yourself a salary for living expenses, your business must make a profit if it is to continue year after year and pay back the money and time you invest in it. Profit helps your firm to be strong—to have a financial reserve for any lean periods.

The "Expenses Worksheet" is designed to help you figure your yearly expenses. To use this worksheet, you need to get one set of figures—the operating ratios for your line of business. If you don't have these figures, check with the trade association which serves your area of the construction industry.

Matching Money and Expenses

After you have planned for your month to month expenses, the next question is: Will there be enough money coming in to meet these expenses and to sustain your company in the event that there is down time until your next job?

The cash forecast is a management tool which can eliminate much of the anxiety that can plague you during lean month. Use the worksheet "Estimated Cash Forecast," or ask your accountant to use it, to estimate

the amounts of cash that you expect to flow through your business during the next 12 months.

Remember that the expenses of buying the materials and supplies for a particular job may occur a month or two before a payment is made. The "Estimated Cash Forecast" should show this.

Estimated Cash Forecast	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Expected Available Cash												
Cash Balance												
Expected Receipts												
Job A												
Job B												
Job C												
Bank Loans												
Total Expected Cash												
Expected Cash Requirements												
Job A												
Job B												
Job C												
Equipment Payments												
Taxes												
Insurance (including surety bond payments)												
Overhead												
Loan Repayments												
Total Cash Required												
Cash Balance												
Total Loans Due to Bank												

10 Expenses Worksheet

	Sample Figures for Specialty Contractors*	% of Year Sales	Your Actual Dollar	Your Dollar Jan	Your Dollar Feb	Your Dollar Mar	Your Dollar Apr	Your Dollar May	Your Dollar Jun	Your Dollar Jul	Your Dollar Aug	Your Dollar Sep	Your Dollar Oct	Your Dollar Nov	Your Dollar Dec
Sales	100 00%														
Cost of Sales	44 45														
Gross Profit	55 55														
Controllable expenses															
Outside labor	1 15														
Operating supplies	2 34														
Gross wages	22 78														
Repairs and maintenance	1 39														
Advertising	1 32														
Car and delivery	2 04														
Bad debts	0 03														
Administrative and legal	4 48														
Miscellaneous expenses	1 03														
Total controllable expenses	31 56														
Fixed expenses															
Rent	1 00														
Utilities	1 41														
Insurance	1 16														
Taxes and licenses	85														
Depreciation	10														
Total fixed expenses	1 65														
Total fixed expenses	6 18														
Total expenses	37 74														
Net profit (before income tax)	17 81														

*These percentages are taken from Burcomber's Small Business Accounting Corporation of America. These figures are not related with a sample and refer to specialists' contractors with an annual gross volume between \$50,000 and \$100,000. The percentages vary from one business to another.

Is Additional Money Needed?

In your planning you may find periods when you will be short of cash. For example, when you start a job you will need materials and supplies. Perhaps it may be a month or two before your first payment. What do you do in the interim if trade credit will not completely satisfy your cash needs?

Your bank may be able to help with a short term loan. If a banker is to lend you money on either a short or long term, he or she will want to know whether your company's financial condition is weak or strong. The bank officer will ask to see a balance sheet.

A blank balance sheet is included. Even if you don't need to borrow, use it. Or, have your accountant use it to draw the "picture" of your firm's financial condition. Moreover, if you don't need to borrow money, you may want to show your plan to the bank that handles your company's account. It is never too early to build good relations with your banker. For the time may come when you will have to borrow.

Current Balance Sheet for

(name of your firm)

as of _____
(date)

Assets

Current Assets	\$ _____
Cash	\$ _____
Receivables	\$ _____
Cost of jobs in progress	\$ _____
Inventories of supplies and tools	\$ _____
Total Current Assets	\$ _____
Fixed Assets	\$ _____
Other Assets	\$ _____
Total Assets	\$ _____

Liabilities

Current Liabilities	\$ _____
Notes payable	\$ _____
Accounts payable	\$ _____
Miscellaneous current liabilities	\$ _____
Total Current Liabilities	\$ _____
Equipment Contracts	\$ _____
Owner's equity	\$ _____
Total Liabilities	\$ _____

Control and Feedback

To make your plan work you will need feedback at the various stages of your management process. When you approach a job as a manager, you will need to plan the job, direct the job, and control the job. Throughout this process, you will need adequate financing. Thus, the management controls you set up should supply you with the information you need to keep your operation "on the money."

During the planning stage, you will need to carefully calculate your bid estimate. To direct the job, you will need your job cost analysis to make sure that the job is going to make a profit. And, to control the job, your forces must be organized. This requires the organized production of any given job (work schedule), competent personnel, and your personal follow-up to insure efficient performance.

Is Your Plan Workable?

Now that you've planned this far, step back and take a look at your plan. It is realistic? Can you do enough business to make a living.

Now is the time to revise your plan if it isn't workable, not after you've invested your time and money. If you feel that some revisions are needed before you start your own business, then make them. Go back to the cash flow and adjust the figures. Better, show your plan to someone who has not had a hand in making out your business plan. Your banker, contact man at SBA, or any outside advisor may be able to point out your strong points which if emphasized could turn into dollars.

If you have strong doubts about your business or your ability to run it, it might be better to delay going into business until you feel as comfortable with the tools of management as you are with the tools of your trade.

Keeping Your Plan Up To Date

How many people in this world can predict the future? Very few indeed! You can expect things to change. You can expect circumstances to be different from what you expected. This is only natural. The difference between successful and unsuccessful planning is often only the ability to keep alert and watch for changes. Stay on top of changing conditions and adjust your plan accordingly.

In order to adjust your plan to account for changes, an owner-manager must:

1. Be alert to the changes that come about in your industry, your market, and in your customers.
2. Check your plan against these changes.
3. Determine what revisions, if any, are needed in your plan.

Whatever methods you use to keep up with changing conditions is up to you. Once a month or so, go over your plan. See whether it needs adjusting. If revisions are needed, make them and put them into action.

Put Your Plan Into Action

When your plan is as near on target as possible, you are ready to put it into action. Keep in mind that action is the difference between a plan and a dream. If a plan is

not acted upon, it is of no more value than a pleasant dream that evaporates over the breakfast coffee.

The first action step would be acquiring enough capital to get started. Do you already have the money? Will you borrow it from friends, relatives, or a bank? Where and when will you hire competent employees?

What else needs to be done? Look for positive action steps that will get your business rolling. For example, where and how will you get whatever licenses you need to be a contractor? (These requirements differ from state to state. A summary of licensing, prequalification, and tax information may be found in *Summary of State Regulation and Taxes Affecting General Contractors*, published annually by the American Insurance Association.)

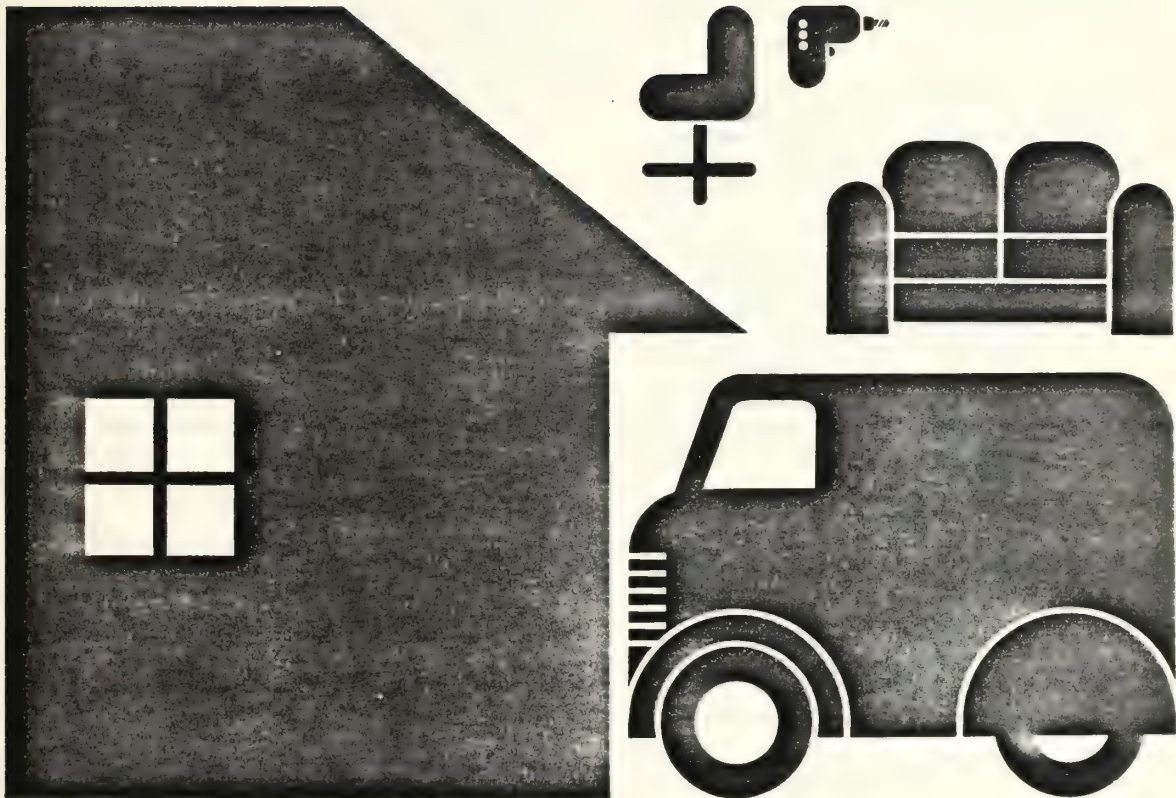
In the following space, list the things that you must do to get your business off the drawing board and into action. Give each item a date so that it can be done at the right time.

Action	Completion Date
_____	_____
_____	_____
_____	_____

SBA

Should You Lease or Buy Equipment?

By Paul Lerman
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Fairleigh Dickinson University
Rutherford, New Jersey



Summary

Small businesses have difficulty raising capital—that's no secret. This difficulty (among other reasons) has caused many to look at leasing as an alternative financing arrangement for acquiring the use of assets. All types of equipment leasing—from motor vehicles to computers, from manufacturing machinery to office furniture—have become more and more attractive.

This Aid describes various aspects of the lease/buy decision. It lists advantages and disadvantages of leasing and provides a format for comparing costs of the options.

What Is a Lease?

A lease is a long term agreement to rent equipment, land, buildings, or any other asset. In return for most—but not all—of the benefits of ownership, the user (**lessee**) makes periodic payments to the owner of the asset (**lessor**). The lease payment covers the original cost of the equipment or other asset and provides the lessor a profit.

Types of Leases

There are three major kinds of leases: the financial lease, the operating lease, and the sale and leaseback.

Financial leases are most common by far. A financial lease is usually written for a term not to exceed the economic life of the equipment. You will find that a financial lease usually provides that:

Periodic payments be made,

Ownership of the equipment reverts to the lessor at the end of the lease term,

The lease is noncancellable and the lessee has a legal obligation to continue payments to the end of the term, and

The lessee agrees to maintain the equipment.

The **operating lease**, or "maintenance lease," can usually be cancelled under conditions spelled out in the lease agreement. Maintenance of the asset is usually the responsibility of the owner (lessor). Computer equipment is often leased under this kind of lease.

The **sale and leaseback** is similar to the financial lease. The owner of an asset sells it to another party and simultaneously leases it back to use it for a specified term. This arrangement lets you free the money tied up in an asset for use elsewhere. You'll find that buildings are often leased this way.

You may also hear leases described as net leases or gross leases. Under a **net lease** the lessee is responsible for expenses such as those for maintenance, taxes, and insurance. The lessor pays these expenses under a **gross lease**. Financial leases are usually net leases.

Finally, you might run across the term **full payout lease**. Under a full payout lease the lessor recovers the original cost of the asset during the term of the lease.

Kinds of Lessors

As the use of leasing has increased as a method for businesses to acquire the use of equipment and other assets, the number of companies in the leasing business has increased dramatically. Leasing is now a billion dollar industry.

Commercial banks, insurance companies, and finance companies do most of the leasing. Many of these organizations have formed subsidiaries primarily concerned with equipment leasing. These subsidiaries are usually capable of making lease arrangements for almost anything.

In addition to financial organizations, there are companies which specialize in leasing. Some are engaged in general leasing, dealing with just about any kind of equipment. Others specialize in particular equipment, such as trucks or computers, for example.

Equipment manufacturers are also occasionally in the leasing business. Of course, they usually lease only the equipment they manufacture.

Advantages of Leasing

The obvious advantage to leasing is acquiring the use of an asset without making a large initial cash outlay. Compared to a loan arrangement to purchase the same equipment, a lease usually:

Requires no downpayment, while a loan often requires 25 percent down;

Requires no restriction on a company's financial operations, while loans often do;

Spreads payments over a longer period (which means they'll be lower) than loans permit; and

Provides protections against the risk of equipment obsolescence, since the lessee can get rid of the equipment at the end of the lease.

There may also be tax benefits in leasing. Lease payments are deductible as operating expenses if the arrangement is a true lease (and the Internal Revenue Service agrees it is). Ownership, however, usually has greater tax advantages through the investment tax credit and depreciation. Naturally, you need to have enough income and resulting tax liability to take advantage of those two benefits.

The investment tax credit may work to the benefit of the lessee as well as the lessor. The credit is a dollar for dollar reduction in federal income taxes, equal to 10 percent of the cost of the equipment in the year the equipment is put into use. While the lessor usually takes the tax credit, it may pass part of the benefit on to the lessee in the form of a reduced lease payment.

Leasing has the further advantage that the leasing firm has acquired considerable knowledge about the kinds of equipment it leases. Thus, it can provide expert technical advice based on experience with the leased equipment.

Finally, there is one further advantage of leasing that you probably hope won't ever be of use to you. In the event of bankruptcy, claims of the lessor to the assets of a firm are more restricted than those of general creditors.

Disadvantages of Leasing

In the first place, leasing usually costs more because you lose certain tax advantages that go with ownership of an asset. Leasing may not, however, cost more if you couldn't take advantage of those benefits because you don't have enough tax liability for them to come into play.

Obviously, you also lose the economic value of the asset at the end of the lease term, since you don't own the asset. Lessees have been known to grossly underestimate the salvage value of an asset. If they had known this value from the outset, they might have decided to buy instead of lease.

Further, you must never forget that a lease is a long-term legal obligation. Usually you can't cancel a lease agreement. So, if you were to end an operation that us-

ed leased equipment, you might find you'd still have to pay as much as if you had used the equipment for the full term of the lease.

Federal Tax Treatment of Leases

Full lease payments are deductible as operating costs. You can make these deductions only if the Internal Revenue Service finds that you have a true lease. You cannot take a full deduction for a "lease" that's really an installment purchase.

Although each lease arrangement may be different, there are some general guidelines to meet:

In no way should any portion of the payment be construed as interest.

Lease payments must not be large compared to those that would be required to achieve ownership.

Any renewal option at lease end must be on terms equivalent to what a third party would offer.

Purchase options must be at amounts comparable with fair market value.

Accounting Treatment of Leases

Historically, financial leases were "off the balance sheet" financing. That is, lease obligations often were not recorded directly on the balance sheet, but listed in footnotes, instead. Not explicitly accounting for leases frequently resulted in a failure to state operational assets and liabilities fairly.

In 1977 the Financial Accounting Standards Board (FASB), the rule-making body of the accounting profession, required that capital leases be recorded on the balance sheet as both an asset and a liability. This was in recognition of the long-term nature of a lease obligation.

Cost Analysis of Lease v. Loan/Purchase

You can analyze the costs of the lease versus purchase problem through **discounted cash flow analysis**. This analysis compares the cost of each alternative by considering: the timing of the payments, tax benefits, the in-

terest rate on a loan, the lease rate, and other financial arrangements.

To make the analysis you must first make certain assumptions about the economic life of the equipment, salvage value, and depreciation. The assumptions for the sample problem in this Aid are shown in Figure 1. Figure 2 is the analysis of the lease alternative, and Figure 4 is an analysis of the borrow and buy option.*

* A straight cash purchase using a firm's existing funds will almost always be more expensive than the lease or loan/buy options because of the loss of use of the funds. Besides, most small firms don't have the large amounts of cash needed for major capital asset acquisitions in the first place.

Figure 2
Evaluation of Lease Cost

(1) End of Year	(2) Lease Payment	(3) (0.50x2) Tax Saving	(4) (2-3) Net Cash Outlay	(5) Discount Factor	(6) (4x5) Net Present Value
0	\$10,363.94	\$5,181.97	\$5,181.97	1.000	\$5,181.97
1	10,363.94	5,181.97	5,181.97	0.952	4,933.24
2	10,363.94	5,181.97	5,181.97	0.907	4,700.05
3	10,363.94	5,181.97	5,181.97	0.864	4,477.22
4	10,363.94	5,181.97	5,181.97	0.823	4,264.76
5	10,363.94	5,181.97	5,181.97	0.784	4,062.66
6	10,363.94	5,181.97	5,181.97	0.746	3,865.75
7	10,363.94	5,181.97	5,181.97	0.710	3,684.38
8	—	—	—	—	—
					\$35,170.03

Net Present Value of Costs of Leasing

To evaluate a lease you must first find the net cash outlay (not cash flow) in each year of the lease term. You find these amounts by subtracting the tax savings (which in the example are 50 percent of the payment) from the lease payment (see column 3 of Figure 2). This calculation gives you the net cash outlay for each year of the leases (column 4, Figure 2).

Each year's net cash outlay must next be discounted to take into account the time value of money. This discounting gives you the **present value** of each of the amounts.

The present value of an amount of money is the sum you would have to invest today at a stated rate of interest to have that amount of money at a specified

Figure 1
Example Assumptions

Equipment Cost: \$60,000

Estimated Economic Life: 10 years

Lease Terms: 8 annual* payments of \$10,363.94 (Apr 10.5%). First payment due upon delivery. Investment tax credit to lessor. Lessee maintains equipment.

Loan Terms: 5 years, 75% financing at 10% (Apr). 5 annual* payments of \$11,870.89. First payment due at end of first year.

Taxes: Lessee tax rate 50%. Method of depreciation for tax purposes is straight line.

Other: Equipment needed for term of lease, 8 years. If firm purchases equipment, it can be sold at end of 8 years for book value. Average after tax cost of capital for lessee is 9%.

* Payments have been annualized to simplify calculations. Payments are usually made monthly.

future date. Say someone offered to give you \$100 five years from now. How much could you take today and be as well off?

Common sense tells you you could take less than \$100, because you'd have the use of the money for the five year period. Naturally, how much less you could take depends on the interest rate you thought you could get if you invested the lesser amount. For example, to have \$100 five years from now at six percent compounded annually, you'd have to invest \$74.70 today. At 10 percent, you could take \$62.10 now and have the \$100 at the end of five years.

Thus, the present value of the net outlay under the lease (\$5,181.97 after tax savings) at the end of year six of the

lease term, for example, is something less than \$5,181.97. For the example in this Aid the appropriate interest rate for discounting the lease payment is the after tax cost (50 percent tax rate, remember) of the loan (set at 10 percent)—or five percent ($.50 \times 10\% = 5\%$).

This low rate of interest is used because of the certain nature (you know exactly what they'll be) of the payments under a lease contract. So, at an annually compounded five percent interest rate, you would have to invest \$3,865.75 today to have \$5,181.97 at the end of six years.

Fortunately there are tables (Figure 3 is a very modest example) which provide the discount factors for present value calculations. In Figure 3 you will note that the factor for the present value of \$1 six years from now at five percent is .746. This factor (.746) times the after tax lease payment outlay (\$5,181.97) equals \$3,865.75, or exactly the amount you would have to invest today at five percent interest compounded annually to have \$5,181.97 six years hence. There are also relatively inexpensive special purpose pocket calculators programmed to make these calculations.

Figure 3
Present Value of \$1

Year *	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	.990	.980	.971	.962	.952	.943	.935	.926	.917	.909
2	.980	.961	.943	.925	.907	.890	.873	.857	.842	.826
3	.971	.942	.915	.889	.864	.840	.816	.794	.772	.751
4	.961	.924	.889	.855	.823	.792	.763	.735	.708	.683
5	.951	.906	.863	.822	.784	.747	.713	.681	.650	.621
6	.942	.888	.838	.790	.746	.705	.666	.630	.596	.564
7	.933	.871	.813	.760	.711	.665	.623	.583	.547	.513
8	.923	.853	.789	.731	.677	.627	.582	.540	.502	.467
9	.914	.837	.766	.703	.645	.592	.544	.500	.460	.424
10	.905	.820	.744	.676	.614	.558	.508	.453	.422	.386

* Periods can be any time period; they do not have to be years.

Why bother with making these present value calculations? Well, you've got to make them to compare the actual cash flows over the time periods. You simply can't realistically compare methods of financing without taking into account the time value of money. It may seem confusing and complex at first, but if you work through the example, you'll begin to see that the technique isn't difficult—just sophisticated.

Figure 2 shows you the present value calculations over the full term of the proposed lease. The sum of the discounted cash flows, \$35,170.03, is called the **net present value of the cost of leasing**. It is this figure that will be compared with the final sum of the discounted cash flows for the loan and purchase alternative.

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Evaluation of the borrow/buy option is a little more complicated because of the tax benefits that go with ownership through the investment tax credit, loan interest deductions, and depreciation. In Figure 4, the steps in the calculation are shown above each column head. The interest portion of each loan payment is found by multiplying the loan interest rate (10% here) by the outstanding loan balance for the preceding period.

Note that in the last three years of the analyzed period the cash flow is positive, coming from the tax saving on depreciation and, in the eighth year, from depreciation and the assumption that the asset could be sold for a salvage value of \$12,000. Since these amounts in the last three years are coming in, they are subtracted after discounting from the amounts in the first five years (cash flowing out) to get the **net present value of costs of purchasing**.

As noted earlier, the salvage value is one of the advantages of ownership. It must be considered in making the comparison; however, it is discounted at a higher rate (the firm's assumed average cost of capital, 9%). This rate is used because the salvage value is not known with any certainty, as are the loan payment, depreciation, and interest payments.

When you compare the two alternatives you see that, purely on the basis of the numbers, the buy option looks like the least costly approach. The major difference in cost, of course, comes from the salvage value. If you ignore that value (a highly conservative approach), the alternatives are very close in their net present value of costs. Naturally, it's possible that salvage costs for real asset could be very high or be next to nothing. Salvage value assumptions need to be made carefully.

Thus, while this sort of analysis is useful, you can't make a lease/buy decision solely on cost analysis figures. The advantages and disadvantages discussed earlier in this Aid, while tough to qualify, may outweigh differences in cost—especially if costs are reasonably close.

Look Before You Lease

A lease agreement is a legal document. It carries a long-term obligation. You must be thoroughly informed of just what you're committing yourself to. Find out the lessor's financial condition and reputation. Be reasonably sure that the lease arrangements are the best you can get, that the equipment is what you need, and that the term is what you want. Remember, once the

agreement is struck, it's just about impossible to change it.

The lease document will spell out the precise provisions of the agreement. Agreements may differ, but the major items will include:

The specific nature of the financing agreement,

Payment amount,

Term of agreement,

Disposition of the asset at the end of the term,

Schedule of the value of the equipment for insurance and settlement purposes in case of damage or destruction,

Who gets the investment tax credit,

Who is responsible for maintenance and taxes,

Renewal options,

Cancellation penalties, and

Special provisions.

Figure 4
Evaluation of Loan Cost

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			(2 - 3)	(5 - 4)		.05 x (6 + 3)	(2 - 7)		(8 x 9)
End of Year	Payment	Interest	Principal Repayment	Outstanding Balance	Depreciation	Tax Savings	Net Cash Flow	Discount Factor	Net Present Value
0	\$ 15,000.00			\$45,000.00		\$6,000.00*	\$ 9,000.00	1.000	\$ 9,000.00
1	11,870.89	\$4,500.00	\$ 7,370.89	37,629.11	\$6,000.00	5,250.00	6,620.89	0.952	5,303.09
2	11,870.89	3,726.91	8,107.98	29,521.13	6,000.00	4,881.46	6,989.43	0.907	6,339.41
3	11,870.89	2,952.11	8,918.78	20,602.35	6,000.00	4,476.06	7,394.83	0.864	6,389.13
4	11,870.89	2,080.24	9,810.66	10,791.69	6,000.00	4,030.12	7,840.77	0.823	6,452.95
5	11,870.86	1,079.17	10,791.69		6,000.00	3,539.59	8,331.27	0.784	6,531.72
6					6,000.00	3,000.00	(3,000.00)	0.746	(2,238.00)
7					6,000.00	3,000.00	(3,000.00)	0.711	(2,133.00)
8	(12,000.00)*				6,000.00	3,000.00	(3,000.00)	0.677	(2,031.00)
							(12,000.00)	0.502***	(6,024.00)
Net Present Value of Cost of Purchasing									\$28,590.30

* Investment tax credit = $0.10 \times \$60,000 = \$6,000$.

**Salvage value = book value = $\$60,000 - 8 \times \$6,000 = \$12,000$.

***Discount factor using average after tax cost of capital.

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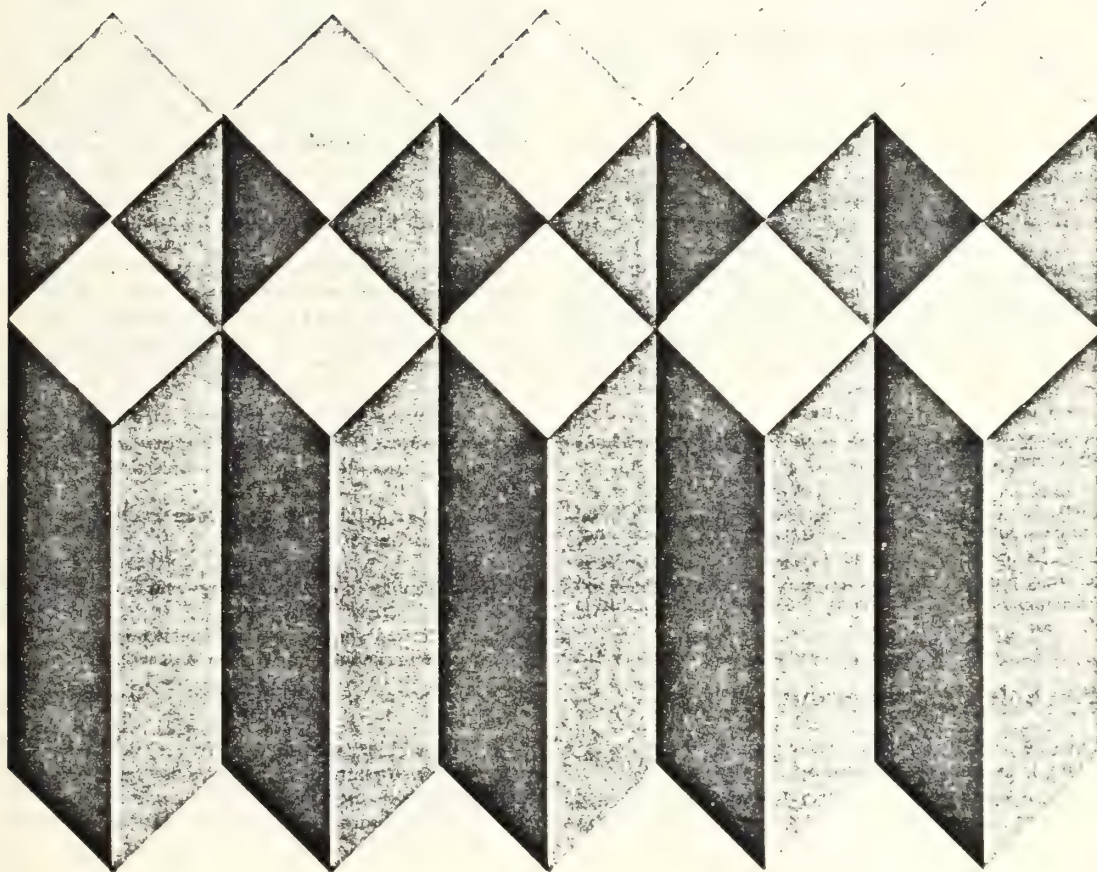
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Number 6.004

SBA

Selecting the Legal Structure for Your Firm

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Summary

There are many reasons today for owner-managers of small businesses to look at the legal structure of their firms. The changing tax laws and fluctuating availability of capital are just two situations which require alert managers to review what legal structures best meets their needs.

Each form of business organization has its advantages and disadvantages. This Aid seeks to briefly identify them for the owner-manager who wants to know "what questions to ask" when seeking the proper professional advice.

If you were to make an analogy between starting a business and playing a card game, you might say, "The game is just for fun, but business is business." Well, you would be right. But let's consider some important similarities.

The game requires skill, strategy, planning, and, most important, a thorough knowledge of the rules. Going into business requires skill (the knowledge of your craft or trade), and it also requires strategy and planning. Most important, to be successful in business, you must understand the rules (or the laws) by which you must conduct your business. All planning and strategy must consider the multitude of local, state, and federal laws and business practices that govern the operation of the business.

Before you enter the complex arena of business and the myriad of laws which influence your freedom of choice and mobility of action, you must first choose the legal structure for your business that will best suit your needs and the needs of your particular business. In order to intelligently select the legal structure for your business, you must ask yourself, "What are my alternatives?" So, let's now look at the nature of various legal business structures.

There are three principal kinds of business structures: the proprietorship, the partnership, and the corporation. Each has certain general advantages and disadvantages, but they must all be weighted to reflect your specific circumstances, goals, and needs. The sole proprietorship is the first firm we'll consider.

The Sole Proprietorship

The sole proprietorship is usually defined as a business which is owned and operated by one person. To establish a sole proprietorship, you need only obtain whatever licenses you need and begin operations.

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Hence, it is the most widespread form of small business organization.

Advantages of the Sole Proprietorship

Ease of formation. There is less formality and fewer legal restrictions associated with establishing a sole proprietorship. It needs little or no governmental approval and is usually less expensive than a partnership or corporation.

Sole ownership of profits. The proprietor is not required to share profits with anyone.

Control and decision making vested in one owner. There are no co-owners or partners to consult. (Except possibly your spouse.)

Flexibility. Management is able to respond quickly to business needs in the form of day to day management decisions as governed by various laws and good sense.

Relative freedom from government control and special taxation.

Disadvantages of the Sole Proprietor

Unlimited liability. The individual proprietor is responsible for the full amount of business debts which may exceed the proprietor's total investment. This liability extends to all the proprietor's assets, such as house and car. Additional problems of liability, such as physical loss or personal injury, may be lessened by obtaining proper insurance coverage.

Unstable business life. The enterprise may be crippled or terminated upon illness or death of the owner.

Less available capital, ordinarily, than in other types of business organizations.

Relative difficulty in obtaining long-term financing.

Relatively limited viewpoint and experience. This is more often the case with one owner than with several.

NOTE: A small business owner might very well select the sole proprietorship to begin with. Later, if the owner succeeds and feels the need, he or she can form a partnership or corporation.

The Partnership

The Uniform Partnership Act, adopted by many states, defines a partnership as "an association of two or more persons to carry on as co-owners of a business for profit." Though not specifically required by the Act, written Articles of Partnership are customarily executed. These articles outline the contribution by the partners into the business (whether financial, material or managerial) and generally delineate the roles of the partners in the business relationship. The following are example articles typically contained in a partnership agreement:

Name, Purpose, Domicile

Duration of Agreement

Character of Partners (general or limited, active or silent)

Contributions by Partners (at inception, at later date)

Business Expenses (how handled)

Authority (individual partner authority in conduct of business)

Separate Debts

Books, Records, and Method of Accounting

Division of Profits and Losses

Draws or Salaries

Rights of Continuing Partner

Death of a Partner (dissolution and winding up)

Employee Management

Release of Debts

Sale of Partnership Interest

Arbitration

Additions, Alterations, or Modifications of Partnership Agreement

Settlements of Disputes

Required and Prohibited Acts

Absence and Disability

Some of the characteristics that distinguish a partnership from other forms of business organization are the limited life of a partnership, unlimited liability of at least one partner, co-ownership of the assets, mutual agency, share of management, and share in partnership profits.

Kinds of Partners

Ostensible Partner. Active and known as a partner.

Active Partner. May or may not be ostensible as well.

Secret Partner. Active but not known or held out as a partner.

Dormant Partner. Inactive and not known or held out as a partner.

Silent Partner. Inactive (but may be known to be a partner).

Nominal Partner (Partner by Estoppel). Not a true partner in any sense, not being a party to the partnership agreement. However, a nominal partner holds him or herself out as a partner, or permits others to make such representation by the use of his/her name or otherwise. Therefore, a nominal partner is liable as if he or she were a partner to third persons who have given credit to the actual or supposed truth of such representation.

Subpartner. One who, not being a member of the partnership, contracts with one of the partners in reference to participation in the interest of such partner in the firm's business and profits.

Limited or Special Partner. Assuming compliance with the statutory formalities, the limited partner risks only his or her agreed investment in the business. As long as he or she does not participate in the management and control of the enterprise or in the conduct of its business, the limited partner is generally not subject to the same liabilities as a general partner.

Advantages of the Partnership

Ease of formation. Legal informalities and expenses are few compared with the requirements for creation of a corporation.

Direct rewards. Partners are motivated to apply their best abilities by direct sharing of the profits.

Growth and performance facilitated. In a partnership, it is often possible to obtain more capital and a better range of skills than in a sole proprietorship.

Flexibility. A partnership may be relatively more flexible in the decision making process than in a corporation. But, it may be less so than in a sole proprietorship.

Relative freedom from government control and special taxation.

Disadvantages of a Partnership

Unlimited liability of at least one partner. Insurance considerations such as those mentioned in the proprietorship section apply here also.

Unstable life. Elimination of any partner constitutes automatic dissolution of partnership. However, operation of the business can continue based on the right of survivorship and possible creation of a new partnership. Partnership insurance might be considered.

Relative difficulty in obtaining large sums of capital. This is particularly true of long term financing when compared to a corporation. However, by using individual partners' assets, opportunities are probably greater than in a proprietorship.

Firm bound by the acts of just one partner as agent.

Difficulty of disposing of partnership interest. The buying out of a partner may be difficult unless specifically arranged for in the written agreement.

The Corporation

The corporation is by far the most complex of the three business structures. For the purpose of this *Aid*, we shall discuss only the general characteristics of the corporation, not its intricacies.

As defined by Chief Justice Marshall's famous decision in 1819, a corporation "is an artificial being, invisible, intangible, and existing only in contemplation of the law." In other words, a corporation is a distinct legal entity, distinct from the individuals who own it.

Formation of the Corporation

A corporation usually is formed by the authority of a state government. Corporations which do business in

more than one state must comply with the Federal laws regarding interstate commerce and with the state laws, which may vary considerably.

The procedure ordinarily required to form a corporation is that, first, subscriptions for capital stock must be taken and a tentative organization created. Then, approval must be obtained from the Secretary of State in the state in which the corporation is to be formed. This approval is in the form of a charter for the corporation, stating the powers and limitations of the particular enterprise.

Advantages of the Corporation

Limitations of the stockholder's liability to a fixed amount of investment. However, do not confuse corporate liability with appropriate liability insurance considerations.

Ownership is readily transferable.

Separate legal existence.

Stability and relative permanence of existence. For example, in the case of illness, death, or other cause for loss of a principal (officer or owner), the corporation continues to exist and do business.

Relative ease of securing capital in large amounts and from many investors. Capital may be acquired through the issuance of various stocks and long term bonds. There is relative ease in securing long term financing from lending institutions by taking advantage of corporate assets and often personal assets of stockholders and principals of guarantors. (Personal guarantees are very often required by lenders.)

Delegated authority. Centralized control is secured when owners delegate authority to hired managers, although they are often one and the same.

The ability of the corporation to draw on the expertise and skills of more than one individual.

Disadvantages of the Corporation

Activities limited by the charter and by various laws. However, some states do allow very broad charters.

Manipulation. Minority stockholders are sometimes exploited.

Extensive government regulations and required local, state, and federal reports.

Less incentive if manager does not share in profits.

Expense of forming a corporation.

Double tax - income tax on corporate net income (profit) and on individual salary and dividends.*

*You should be aware, also, of the possibility of selecting subchapter S status (IRC 1371-1379). The purpose of subchapter S is to permit a "small business corporation" to have its income taxed to the shareholders as if the corporation were a partnership. One objective is to overcome the double tax feature of our system of taxing corporate income and stockholder dividends. Another purpose is to permit the shareholders to have the benefit of offsetting business losses incurred by the corporation against the income of the shareholders.

Among the conditions for the making and maintenance of subchapter S election are that the corporation have ten or fewer shareholders, all of whom are individuals or estates, that there be no nonresident alien shareholders, that there be only one class of outstanding stock, that all shareholders consent to the election, and that a specific portion of the corporation's receipts be derived from active business rather than enumerated passive investments. No limit is placed on the size of the corporation's income and assets.

In summary, review the following eight questions:

1. What is the size of the risk? That is, what is the amount of the investors' liability for debts and taxes?
2. What would the continuity (life) of the firm be if something happened to the principal or principals?
3. What legal structure would insure the greatest adaptability of administration for the firm?
4. What are the influence of applicable laws?
5. What are the possibilities of attracting additional capital?
6. What are the needs for and possibilities of attracting additional expertise?
7. What are the costs and procedures in starting?
8. What is the ultimate goal and purpose of the enterprise, and which legal structure can best serve its purposes?

The small businessowner is required to wear many hats, but none can be expected to be a lawyer, certified public accountant, marketing specialist, production engineer, environmental specialist, etc. Therefore, you should get the facts before making decisions. When necessary and if possible, you should also get professional counsel to help you avoid misunderstanding technical or legal issues and avoid making bad decisions and false starts that require backtracking and added expense. This is especially true when you are deciding what legal form to adopt. This *Aid* has presented an introduction to the options and guidelines for selecting the best legal structure for your business.

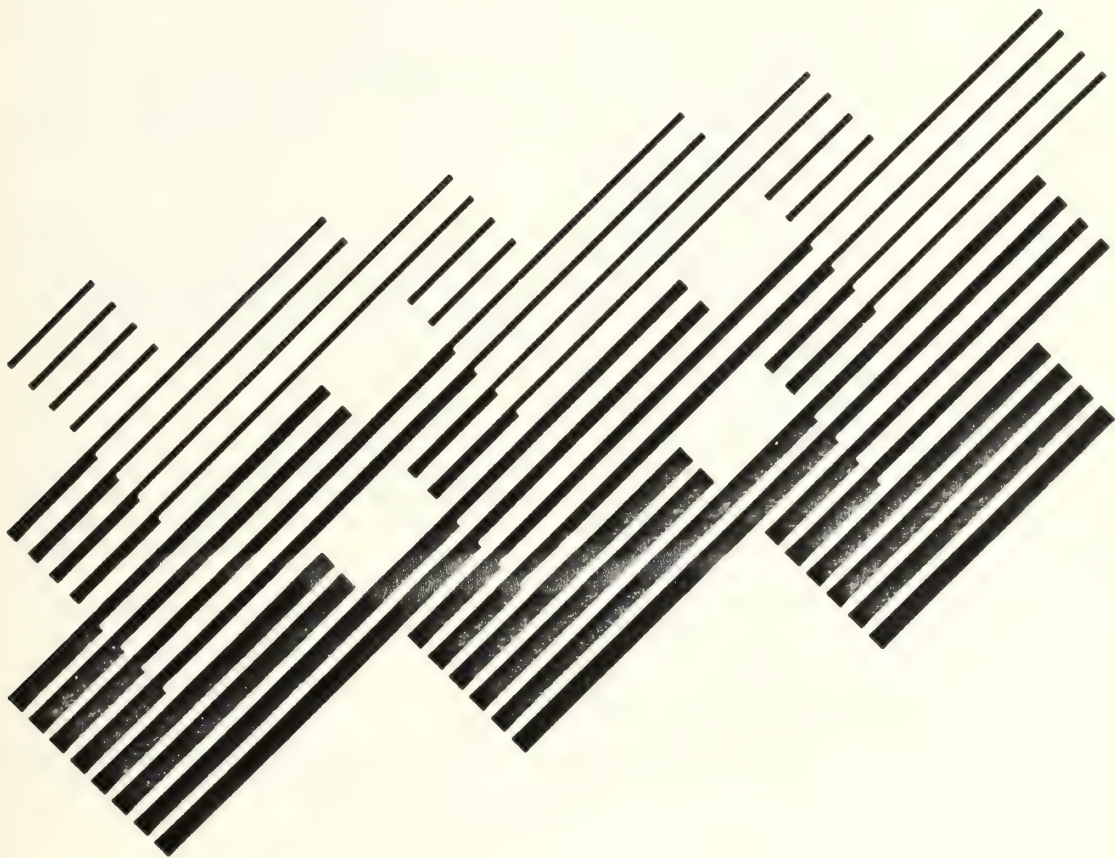
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SBA

Feasibility Checklist for Starting a Small Business

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Summary

This AID is a checklist for the owner/manager of a small business enterprise or for one contemplating going into business for the first time. The questions concentrate on areas you must consider seriously to determine if your idea represents a real business opportunity and if you really know what you are getting into. You can use it to evaluate a completely new venture proposal or an apparent opportunity in your existing business.

Perhaps the most crucial problem you will face after expressing an interest in starting a new business or capitalizing on an apparent opportunity in your existing business will be determining the feasibility of your idea. Getting into the right business at the right time is simple advice, but advice that is extremely difficult to implement. The high failure rate of new businesses and products indicates that very few ideas result in successful business ventures, even when introduced by well established firms. Too many entrepreneurs strike out on a business venture so convinced of its merits that they fail to thoroughly evaluate its potential.

This checklist should be useful to you in evaluating a business idea. It is designed to help you screen out ideas that are likely to fail before you invest extensive time, money, and effort in them.

Preliminary Analysis

A feasibility study involves gathering, analyzing and evaluating information with the purpose of answering the question: "Should I go into this business?"

Answering this question involves first a preliminary assessment of both personal and project considerations.

General Personal Considerations

The first seven questions ask you to do a little introspection. Are your personality characteristics such that you can both adapt to and enjoy small business ownership/management?

- | | Yes | No |
|--|-------|-------|
| 1. Do you like to make your own decisions? | _____ | _____ |
| 2. Do you enjoy competition? | _____ | _____ |
| 3. Do you have will power and self-discipline? | _____ | _____ |
| 4. Do you plan ahead? | _____ | _____ |
| 5. Do you get things done on time? | _____ | _____ |
| 6. Can you take advice from others? | _____ | _____ |

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Yes No

7. Are you adaptable to changing conditions? _____

The next series of questions stress the physical, emotional, and financial strains of a new business.

8. Do you understand that owning your own business may entail working 12 to 16 hours a day, probably six days a week, and maybe on holidays? _____
9. Do you have the physical stamina to handle a business? _____
10. Do you have the emotional strength to withstand the strain? _____
11. Are you prepared to lower your standard of living for several months or years? _____
12. Are you prepared to lose your savings? _____

Specific Personal Considerations

1. Do you know which skills and areas of expertise are critical to the success of your project? _____
2. Do you have these skills? _____
3. Does your idea effectively utilize your own skills and abilities? _____
4. Can you find personnel that have the expertise you lack? _____
5. Do you know why you are considering this project? _____
6. Will your project effectively meet your career aspirations? _____

The next three questions emphasize the point that very few people can claim expertise in all phases of a feasibility study. You should realize your personal limitations and seek appropriate assistance where necessary (i.e., marketing, legal, financial).

7. Do you have the ability to perform the feasibility study? _____
8. Do you have the time to perform the feasibility study? _____
9. Do you have the money to pay to have the feasibility study done? _____

General Project Description

1. Briefly describe the business you want to enter. _____

2. List the products or services you want to sell. _____
3. Describe **who will use** your products/services. _____
4. **Why** would someone **buy** your product/service? _____
5. What kind of location do you need in terms of type of neighborhood, traffic count, nearby firms? _____
6. List your product/services suppliers. _____
7. List your major competitors—those who sell or provide like products/services _____
8. List the labor and staff you require to provide your products/services. _____

Requirements for Success

To determine whether your idea meets the basic requirements for a successful new project, you must be able to answer at least one of the following questions with a "yes."

- | | Yes | No |
|--|-------|-------|
| 1. Does the product/service/business serve a presently unserved need? | _____ | _____ |
| 2. Does the product/service/business serve an existing market in which demand exceeds supply? | _____ | _____ |
| 3. Can the product/service/business successfully compete with existing competition because of an "advantageous situation," such as better price, location? | _____ | _____ |

Major Flaws

A "Yes" response to questions such as the following would indicate that the idea has little chance for success.

- | | | |
|---|-------|-------|
| 1. Are there any causes (i.e., restrictions, monopolies, shortages) that make any of the required factors of production unavailable (i.e., unreasonable cost, scarce skills, energy, material, equipment, processes, technology, or personnel)? | _____ | _____ |
| 2. Are capital requirements for entry or continuing operations excessive? | _____ | _____ |
| 3. Is adequate financing hard to obtain? | _____ | _____ |

Yes No

- | | | |
|---|-------|-------|
| 4. Are there potential detrimental environmental effects? | _____ | _____ |
| 5. Are there factors that prevent effective marketing? | _____ | _____ |

Desired Income

The following questions should remind you that you must seek both a return on your investment in your own business as well as a reasonable salary for the time you spend in operating that business.

1. How much income do you desire? _____
2. Are you prepared to earn less income in the first 1-3 years? _____
3. What minimum income do you require? _____
4. What financial investment will be required for your business? _____
5. How much could you earn by investing this money? _____
6. How much could you earn by working for someone else? _____
7. Add the amounts in 5 and 6. If this income is greater than what you can realistically expect from your business, are you prepared to forego this additional income just to be your own boss with only the prospects of more substantial profit/income in future years? _____
8. What is the average return on investment for a business of your type? _____

Preliminary Income Statement

Besides return on investment, you need to know the income and expenses for your business. You show profit or loss and derive operating ratios on the income statement. Dollars are the (actual, estimated, or industry average) amounts for income and expense categories. Operating ratios are expressed as percentages of net sales and show relationships of expenses and net sales.

For instance \$50,000 in net sales equals 100% of sales income (revenue). Net profit after taxes equals 3.14% of net sales. The hypothetical "X" industry average after tax net profit might be 5% in a given year for firms with \$50,000 in net sales. First you estimate or forecast income (revenue) and expense dollars and ratios for your business. Then compare your estimated or actual performance with your industry average. Analyze differences to see why you are doing better or worse than the competition or why your venture does or doesn't look like it will float.

These basic financial statistics are generally available for most businesses from trade and industry associations, government agencies, universities, and private companies and banks (Dun & Bradstreet, Robert Morris Associates, Accounting Corporation of America, National Cash Register Company, Bank of America, Federal Trade Commission, and Securities and Exchange Commission).

Forecast your own income statement. Do not be influenced by industry figures. Your estimates must be as accurate as possible or else you will have a false impression.

1. What is the normal markup in this line of business, i.e., the dollar difference between the cost of goods sold and sales, expressed as a percentage of sales? _____
2. What is the average cost of goods sold percentage of sales? _____
3. What is the average inventory turnover, i.e., the number of times the average inventory is sold each year? _____
4. What is the average gross profit as a percentage of sales? _____
5. What are the average expenses as a percentage of sales? _____
6. What is the average net profit as a percent of sales? _____
7. Take the preceding figures and work backwards using a standard income statement format and determine the level of sales necessary to support your desired income level. _____
8. From an objective, practical standpoint, is this level of sales, expenses and profit attainable? _____

ANY SMALL BUSINESS, INC. Condensed Hypothetical Income Statement For year ending December 31, 19____		
Item	Amount	Ratio Percent
Gross sales	\$773,888	
Less returns, allowances, and cash discounts	14,872	
Net sales	\$759,016	100.00
Cost of goods sold	589,392	77.65
Gross profit on sales	\$169,624	22.35
Selling expenses	41,916	5.52
Administrative expenses	28,010	3.69
General expenses	50,030	6.59
Financial expenses	5,248	0.69
Total expenses	125,204	16.50
Operating profit	44,420	5.85
Extraordinary expenses	1,200	0.16
Net profit before taxes	\$43,220	5.69
Federal, state, and local taxes	19,542	2.57
Net profit after taxes	\$23,678	3.12

Market Analysis

The primary objective of a market analysis is to arrive at a realistic projection of sales. After answering the following questions you will be in a better position to answer question eight immediately above.

Population

1. Define the geographical areas from which you can realistically expect to draw customers. _____
2. What is the population of these areas? _____
3. What do you know about the population growth trend in these areas? _____
4. What is the average family size? _____
5. What is the age distribution? _____
6. What is the per capita income? _____
7. What are the consumers' attitudes toward business like yours? _____
8. What do you know about consumer shopping and spending patterns relative to your type of business? _____
9. Is the price of your product/service especially important to your target market? _____
10. Can you appeal to the entire market? _____
11. If you appeal to only a market segment, is it large enough to be profitable? _____

Competition

1. Who are your major competitors? _____
2. What are the major strengths of each? _____
3. What are the major weaknesses of each? _____
4. Are you familiar with the following factors concerning your competitors:
 Price structure? _____
 Product lines (quality, breadth, width)? _____
 Location? _____
 Promotional activities? _____
 Sources of supply? _____
 Image from a consumer's viewpoint? _____
5. Do you know of any new competitors? _____
6. Do you know of any competitor's plans for expansion? _____
7. Have any firms of your type gone out of business lately? _____
8. If so, why? _____
9. Do you know the sales and **market share** of each competitor? _____
10. Do you know whether the sales and market share of each competitor are increasing, decreasing, or stable? _____
11. Do you know the profit levels of each competitor? _____

12. Are your competitors' profits increasing, decreasing, or stable? _____
13. Can you compete with your competition? _____

Sales

1. Determine the total sales volume in your market area. _____
2. How accurate do you think your forecast of total sales is? _____
3. Did you base your forecast on concrete data? _____
4. Is the estimated sales figure "normal" for your market area? _____
5. Is the sales per square foot for your competitors above the normal average? _____
6. Are there conditions, or trends, that could change your forecast of total sales? _____
7. Do you expect to carry items in inventory from season to season, or do you plan to mark down products occasionally to eliminate inventories? If you do not carry over inventory, have you adequately considered the effect of **mark-down** in your pricing? (Your gross profits margin may be too low.) _____
8. How do you plan to advertise and promote your product/service/business? _____
9. Forecast the share of the total market that you can realistically expect—as a dollar amount and as a percentage of your market. _____
10. Are you sure that you can create enough competitive advantages to achieve the market share in your forecast of the previous question? _____
11. Is your forecast of dollar sales greater than the sales amount needed to guarantee your desired or minimum income? _____
12. Have you been optimistic or pessimistic in your forecast of sales? _____
13. Do you need to hire an expert to refine the sales forecast? _____
14. Are you willing to hire an expert to refine the sales forecast? _____

Supply

1. Can you make a list of every item of inventory and operating supplies needed? _____
2. Do you know the quantity, quality, technical specifications, and price ranges desired? _____
3. Do you know the name and location of each potential source of supply? _____
4. Do you know the price ranges available for each product from each supplier? _____

Yes No

5. Do you know about the delivery schedules for each supplier? _____
6. Do you know the sales terms of each supplier? _____
7. Do you know the credit terms of each supplier? _____
8. Do you know the financial condition of each supplier? _____
9. Is there a risk of shortage for any critical materials or merchandise? _____
10. Are you aware of which supplies have an advantage relative to transportation costs? _____
11. Will the price available allow you to achieve an adequate markup? _____

Expenses

1. Do you know what your expenses will be for: rent, wages, insurance, utilities, advertising, interest, etc? _____
2. Do you need to know which expenses are Direct, Indirect, or Fixed? _____
3. Do you know how much your overhead will be? _____
4. Do you know how much your selling expenses will be? _____

Miscellaneous

1. Are you aware of the major risks associated with your product? _____
- Service? Business? _____
2. Can you minimize any of these major risks? _____
3. Are there major risks beyond your control? _____
4. Can these risks bankrupt you? (fatal flaws) _____

Venture Feasibility

1. Are there any major questions remaining about your proposed venture? _____
2. Do the above questions arise because of a lack of data? _____
3. Do the above questions arise because of a lack of management skills? _____
4. Do the above questions arise because of a "fatal flaw" in your idea? _____
5. Can you obtain the additional data needed? _____
6. Can you obtain the additional managerial skills needed? _____
7. Are you aware that there is less than a 50-50 chance that you will be in business two years from now? _____

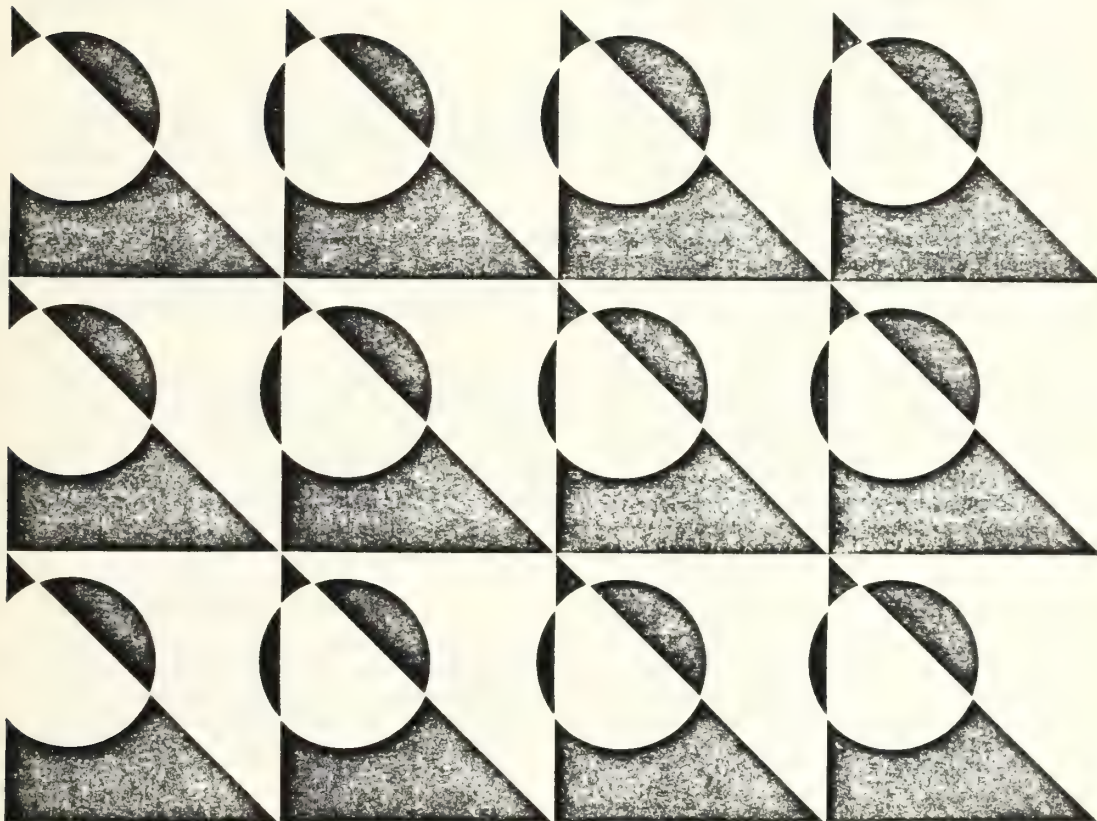
U.S. Small Business Administration
Management Assistance
Support Services

Management Aids
Number 1.011

SBA

Analyze Your Records to Reduce Costs

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Summary

Increasing profits through cost reduction must be based on the concept of an organized, planned program. Unless adequate records are maintained through a proper accounting system, there can be no basis for ascertaining and analyzing costs.

Cost reduction IS NOT simply attempting to slash any and all expenses unmethodically. The owner-manager must understand the nature of expenses and how expenses inter-relate with sales, inventories, cost of goods sold, gross profits, and net profits.

Cost reduction does not mean only the reduction of specific expenses. You can achieve greater profits through more efficient use of the expense dollar. Some of the ways you do this are by increasing the average sale per customer, by effectively using display space and thereby increasing sales volume per square foot, by getting a larger return for your advertising and sales promotion dollar, and by improving your internal methods and procedures.

Profit is in danger when good merchandising and cost control do not go hand in hand. A big sales volume does not necessarily mean a big profit, as one small retailer, Carl Jones*, learned.

Jones's pride was stocking stylish and well assorted lines of merchandise. Each year, sales volume increased. This increase was attributed to good merchandising which Jones felt took care of the steady rise in expenses.

But Mr. Jones began to have doubts when he found it necessary to get bank loans more often than had been his practice. When he discussed the problem with his banker, Jones was advised to check expenses. As the banker said, "A large and increasing sales volume often creates the appearance of prosperity while behind-the-scene expenses are eating up the profit."

Paying The Right Price

Your goal should be to pay the right price for prosperity. Determining that price for your operation goes beyond knowing what your expenses are. Reducing expenses to increase profit requires you to obtain the most efficient use of the expense dollar.

Look, for example, at the payroll expense. Salesclerks are paid to sell goods, and their productivity is the key to reducing the payroll cost.

If you train a salesclerk to make multiple sales at higher unit prices, you increase productivity and your profits without adding dollars to your payroll expenses. Or if four salesclerks can be trained to sell the amount previously sold by seven, the payroll can be cut by three persons.

An understanding of the worth of each expense item comes from experience and an analysis of records. Adequate records tell what has happened. Their analysis provide facts which can help you set realistic cost and profit goals. When you attain these goals, you are paying the right price for your store's prosperity.

Analyze Your Expenses

Sometimes you cannot cut an expense item. But you can get more from it and thus increase your profits. In analyzing your expenses, you should use percentages rather than actual dollar amounts.

For example, if you increase sales and keep the dollar amount of an expense the same, you have decreased that expense as a percentage of sales. When you decrease your cost percentage, you increase your percentage of profit.

On the other hand, if your sales volume remains the same, you can increase the percentage of profit by reducing a specific item of expense. Your goal, of course, is to do both: to decrease specific expenses and increase their productive worth at the same time.

Before you can determine whether cutting expenses will increase profits, you need information about your operation. This information can be obtained only if you have an adequate recordkeeping system. Such records will provide the figures to prepare a profit and loss statement (preferably monthly for most retail businesses), a budget, break-even calculations, and evaluations of your operating ratios compared with those of similar types of business.

Break-even. A useful method for making expense comparisons is break-even analysis. Break-even is the point at which gross profit equals expenses. In a business year, it is the time at which your sales volume has become sufficient to enable your over-all operation to start showing a profit. The two condensed profit and loss statements, in the accompanying example, illustrate the point. In statement "A", the sales-volume is at the break-even point and no profit is made. In Statement

*Names are fictitious in Aids.

"B" for the same store, the sales volume is beyond the break-even point and a profit is shown. In the two statements, the percentage factors are the same except for fixed expenses, total expenses, and operating profit.

	A		B	
	Break-Even Amount	Percent of Sales	Profit Amount	Percent of Sales
Sales	\$500,000	100	\$600,000	100
Cost of Sales	300,000	60	360,000	60
Gross Profit	200,000	40	240,000	40
Operating Expenses				
Fixed	150,000	30	150,000	25
Variable	50,000	10	60,000	10
Total	200,000	40	210,000	35
Operating Profit	\$ NONE	0	\$ 30,000	5

As shown in the example, once your sales volume reaches the break-even point, your fixed expenses are covered. Beyond the break-even point, every dollar of sales should earn you an equivalent additional profit percentage.

It is important to remember that once sales pass the break-even point, the fixed expenses percentage goes down as the sales volume goes up. Also the operating profit percentage increases at the same rate as the percentage rate for fixed expenses decreases—provided, of course, that variable expenses are kept in line. In the illustration, fixed expenses in Statement "B" decreased by 5 percent and operating profit increased by 5 percent.

Locating Reducible Expenses

Your profit and loss (or income) statement provides a summary of expense information and is the focal point in locating expenses that can be cut. Therefore, the information should be as current as possible. As a report of what has *already* been spent, a P and L statement alerts you to expense items that bear watching in the present business period. If you get a P and L statement only at the end of the year, you should consider having one prepared more often. At the end of each quarter might be often enough for some firms. Ideally, you can get the most recent information from a monthly P and L.

Regardless of the frequency, for the most information, two P and L statements should be prepared. One statement should report the sales, expenses, profit and/or loss of your operations cumulatively for the current business year to date. The other should report on the same items for the last complete month or quarter. Each of the statements should also carry the following

information: (1) this year's figures and each item as a percentage of sales, (2) last year's figures and the percentages, (3) the difference between last year and this year—over or under, (4) budgeted figures and the respective percentages, (5) the difference between this year and the budgeted figures—over and under, (6) average percentages for your line of business (industry operating ratio) when available, and (7) the difference between your annual percentages and the industry ratios—under or over.

This information allows you to locate expense variation in three ways: (1) by comparing this year to last year, (2) by comparing expenses to your own budgeted figures, and (3) by comparing your percentages to the operating ratios for your line of business.

The important basis for comparison is the percentage figure. It represents a common denominator for all three methods. When you have indicated the percentage variations, you should then study the dollar amounts to determine what kind of corrective action is needed.

Because your cost cutting will come largely from variable expenses, you should make sure that they are flagged on your P and L statements. Variable expenses are those which fluctuate with the increase or decrease of sales volume. Some of them are: advertising, delivery, wrapping supplies, sales salaries, commissions, and payroll taxes. Fixed expenses are those which stay the same regardless of sales volume. Among them are: your salary, salaries for permanent non-selling employees (for example, the bookkeeper), depreciation, rent, and utilities.

Taking Action

When you have located a problem expense area, the next step obviously is to reduce that cost so as to increase your profit. A key to the effectiveness of your cost-cutting action is the worth of the various expenditures.

As long as you know the worth of your expenditures, you can profit by making small improvements in expenses. Keep an open eye and an open mind. It is better to do a spot analysis once a month than to wait several months and then do a detailed study.

Take action as soon as possible. You can refine your cost-cutting action as you go along.

Be persistent. Sometimes results may be slower than you might like. Keep in mind that only persistent analysis of your records and constant action can keep expenses from eating up profit.

U.S. Small Business Administration
Office of
Business Development

Management Aids
Number 1.015

SBA

Budgeting in a Small Service Firm

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Summary

Budgeting is a tool for dealing with the future. It helps you turn expectations into reality.

An increase in profit should be the first consideration when you think about the prospects for your small service business in the next year. Working up a budget helps you to determine whether or not your profit goal is within reach.

When the figures are all together, you have answers to questions such as: What sales will be needed to achieve the desired profit? What fixed expenses will be necessary to support these sales? What variable expenses will be incurred in producing the services?

Because small business is not a cut-and-dried affair, the first budget often will uncover problems and suggest choices. Working up additional budgets will help you decide what changes to make in order to have a workable plan for next year.

Many owner-managers run their businesses without a planned goal. In trying to survive from week to week and from month to month, such owner-managers overlook an important management tool—budgeting. Whether the plan is for next year, for the next 3 years, or for the next 5 years, budgeting can help just as a map helps you to keep on the right road.

Why Budget

A budget is a plan that enables you to set a goal and list the steps which are necessary to reach that goal.

Thus, a budget helps you think about what you want your business to do in the future. By planning, you are in a better position to act to prevent crises.

In its simplest form a budget is a detailed plan of future receipts and expenditures—a projected profit and loss statement. Thus once the period for which you have budgeted is completed, you can compare actual results with anticipated goals. If some of your expenses, for example, are higher than you expected, you can start looking for ways to cut them. Conversely, if you have fallen short of your goal, you may want to look for ways to increase your income.

Budget makers can start either with a forecast of sales and work down or with a forecast of profits and work up. Most small service businesses use the latter method. In other words, you decide what profit you want to make and then list the expenses that you will incur in order to make that predetermined profit.

2

A Plan For Increased Profit

Before you can use a budget as a plan for increased profit, you have to be sure that your present profit is what it should be. In a service business, the year-end profit should be large enough to make a return on your investment and a return on your own work—pay you a salary.

Value Of Owner's Service. Skilled crafts people who own service businesses are kidding themselves if their firms' profits are less than they can earn working for someone else. Your net profit after taxes should be at least as much as you can earn if you worked at your trade for a weekly pay check.

Return On Investment. The year-end profit is too low if it does not also include a return on the owner-manager's investment. That investment includes the money you put into the firm when you started it and the profit of prior years which you left in the firm—retained earnings. You should check to be sure that the rate of return on your investment is what it should be. Your trade association should be able to provide guidelines about the rate of return on investment in your line of business. Your accountant and banker are also sources of help.

Your Targeted Income. After you know what you made last year, you can set a profit goal for next year. Be sure that your goal includes a return on your services and a return on your investment. Your goal should also include an amount for State and Federal taxes. For example, if you want to make \$10,000 after taxes, your goal before taxes should be about \$13,333. You have to add this \$3,333 to take care of State and Federal taxes. Keep in mind that the larger your goal, the larger the amount which will have to be added to account for taxes. Your accountant can help you determine that amount.

Can You Reach The Goal

Once you have decided on your profit target, the next step in preparing a budget is to determine whether you can achieve it. To do this, you must project your fixed costs and your variable costs. From these three figures—profit, fixed expenses, and variable expenses—you can determine your "hoped for" total income.

In gathering figures, keep in mind that without accurate information planning becomes guessing. The owner-manager who has never budgeted should talk with an accountant about a recordkeeping system. Changes may be needed to provide the necessary budget information. It may be that your present system does not break costs down into fixed and variable expenses, or it may be that

you need to have a profit and loss (or income) statement at more frequent intervals to determine the seasonal fluctuations of your revenues and expenses.

Fixed Expenses. Regardless of sales, fixed expenses stay the same. Several examples of fixed expenses are insurance, rent, taxes on property, wages paid to salaried employees, depreciation of equipment, interest on borrowed money, building maintenance costs, office salaries, and office expenses.

Variable Expenses This type of expense varies with sales. In some service businesses, the cost of labor is the biggest factor. Sales commissions, payroll taxes, insurance, advertising, and delivery expenses are other examples of variable expenses.

Determine Your Expected Service Income Your expected service income contribution is the difference between sales and the variable expenses that are necessary to produce these sales. When this difference equals fixed expenses and the desired profit, you have a workable budget.

Lucy's Beauty Shop

Lucy's Beauty Shop* illustrates the principals of budgeting in a small service business. The owner-manager is Mrs. Lucy Doe. The shop's income is from two sources: (1) from beauty services which are performed by three operators and (2) from cosmetics and perfumes which are sold by the receptionist. The receptionist also answers the telephone, keeps the shop's daily records, and prepares the checks for Mrs. Doe to sign.

Targeted Income In making a budget, Mrs. Doe decided that she wanted to increase her net profit after taxes. She set the goals at \$10,000 for net profit after taxes. This figure meant that the shop's profit before taxes had to be about \$13,333 because she figured that her taxes would amount to about \$3,333.

This goal was an ambitious one because her previous year's net profit before taxes was \$8,390. For details on that year see page four. "Lucy's Beauty Shop—Profit and Loss Statement."

Determining Fixed Expenses. As shown in the table, "Lucy's Beauty Shop—Profit and Loss Statement," the shop's fixed expense items are: depreciation of equipment, receptionist's salary, insurance, rent, interest on equipment obligations, and utilities (heat and air conditioning). In addition, about one half of the laundry and shop maintenance expense is fixed. In budgeting her fixed expenses for next year, Mrs. Doe took into account:

(1) the raise she intended to give the receptionist, (2) a change in amount of interest, and (3) a change in her insurance expense.

She estimated that her fixed expenses for next year would be \$11,000.

Determining Variable Expenses. In Mrs. Doe's beauty shop, the variable expenses—those that vary with sales—are cost of cosmetics sold, shop supplies, payroll taxes and costs, utilities (water and electricity), about one-half of laundry and shop maintenance, and operator's salaries. These salaries are variable because each operator receives one-half of the total price charged the customer.

When determining variable expenses, Mrs. Doe uses her trade journals for information on budgeted percentages. For budgeting purposes, all costs are expressed as a percentage of the sales dollar. In her case, the percentages are: beauty shop supplies 10; laundry, including uniforms 3; water and variable utilities 1; and payroll costs 5.

*Names in Aids are Fictitious

Lucy's Beauty Shop
Profit And Loss Statement
For the Year Ended December 31, 19__

Revenue:				
Merchandise				\$12,000
Beauty Shop Service				<u>42,000</u>
Total Revenue				\$54,000
Cost of Merchandise Sold				<u>6,000</u>
Gross Margin				\$48,000
Expenses	Variables	Fixed	Total	
Depreciation	.	300	300	
Salaries and wages	21,000	2,700	23,700	
Supplies	4,200		4,200	
Insurance		110	110	
Rent		4,800	4,800	
Payroll taxes and costs	2,370		2,370	
Interest		250	250	
Utilities	420	1,000	1,420	
Laundry and Shop maintenance	<u>1,260</u>	<u>1,200</u>	<u>2,460</u>	
	29,250	10,360		\$39,610
Net Income Before Taxes				<u>\$8,390</u>

She estimates her total payroll costs at 5 percent of gross revenue from service or 10 percent of salaries. Payroll taxes both-State and Federal-account for 7.9 percent of the 10 percent, and payment's for workers' compensation and other employee insurance account for 2.1 percent.

Determining Expected Service Income. The next step in preparing a budget for Lucy's Beauty Shop is to determine the expected service income contribution. The basis for estimating this income for next year is the average revenue for each operator's appointment with one customer. This figure is \$4. See the following table, "Service Income Contribution."

One half of the \$4 belongs to the operator. Other variable expenses take 76 cents. Thus, from each \$4 unit of services that is sold, \$1.24 is left for service income contribution.

The service revenue for 12 months is shown in the table, "Determination of Total Service Contribution." Mrs. Doe arrived at these estimates as follows:

1. From the appointment book, she learned that each operator averages 15 appointments a day.

2. The shop's income from each operator is \$30 a day (15 times \$2).
3. Each operator works 5 days a week.
4. Each operator contributes \$630 a month to the shop's income (21 days times \$30).

Service Income Contribution
Expressed as a Percent of Sales Dollar

Average Service Revenue	\$4.00	100%
Variable Expenses		
Operator salaries	\$2.00	50%
Beauty supplies	.40	10%
Laundry and uniforms	.12	3%
Water	.04	1%
Payroll costs	.20	5%
Total Variable Expenses	<u>2.76</u>	<u>69%</u>
Income Contribution From Services	\$1.24	31%

On this \$630, the shop clears \$390.60 because 76 cents of each \$2 that the shop receives from an operator's work goes for variable expenses (see the table, "Service Income Contribution").

The shop's cosmetic sales contribute a net revenue of 50 cents on the sales dollar. Mrs. Doe estimated, based on past experience, that she could get a 50 percent increase in the sales of cosmetics without additional advertising.

Comparing Revenue and Cost. After Mrs. Doe determines her variable expenses, fixed expenses, and the service income contribution, she is ready to test her budget. She does this by adding her total fixed expenses of \$11,000 and the desired gross profit of \$13,333. This total comes to \$24,333.

But her estimated service revenue (see the table, "Determination of Total Service Contribution,") is only \$23,061. It will not cover her fixed expenses and desired profit. Resources will be about \$1,300 short of the desired goal.

Determination Of Total Service Contribution

Revenue Per Operator For The Year (\$1,260 per month x 12 months)	<u>\$15,120</u>
Service Income Contribution Per Operator (\$390.60 x 12 months)	<u>4,687*</u>
Total Service Contribution From Beauty Shop (3 operators x \$4,687)	14,061
From Cosmetic Sales (\$18,000 x 50%)	<u>9,000</u>
Total Service Contribution Based On Present Outlook	<u>\$23,061</u>

*Figures are rounded to the nearest dollar.

Where Can She Go?

Because resources are not enough to cover fixed expenses and the desired profit, Mrs. Doe has to adjust her budget. She can go in at least three directions. One possibility is to add another operator. Another is to try to increase cosmetic sales. A third solution is to reduce her expected profit. In order to decide what to do, Mrs. Doe needs answers to several questions about each possibility. She may have to work up several tentative budgets to determine what to do.

Add Another Operator. This possibility poses the following questions: Is the relationship between fixed expenses and revenue in line with industry trends? Is there space for an additional booth? What additional fixed expenses will be incurred? Can another operator be

kept busy? If so, the additional revenue can help to offset Mrs. Doe's rent which is slightly higher than the average for her line of business. That average is 10 percent of gross beauty service income. The shop has sufficient space for another booth. However, if a booth is added, fixed expenses will increase because equipment for the new booth will mean additional financing costs.

Increase Cosmetic Sales. This possibility seems to be a logical way to increase income because each dollar of sales will increase the revenue by 50 cents. The first question is how much of an increase in cosmetic sales will be needed? Mrs. Doe calculated that these sales must be increased by about 95 percent rather than by 50 percent as she originally planned. Other questions to answer here are: By what method will sales be increased? By what additional advertising? By offering the receptionist and operators a commission on cosmetic sales? By reducing prices? What effect will these methods have on revenue? How much additional inventory will be needed? How will it be financed? Is storage and display space sufficient to accommodate increased sales?

Reduce Expectations. Sometimes the only practical solution is to reduce the expected profit. Mrs. Doe decided that \$10,000 net profit after taxes was not in the picture next year. Based on her knowledge of the beauty shop business, she felt that her shop was not quite ready to add another operator. For one thing, she foresaw the possibility of personnel trouble if a new operator was not kept busy.

She also felt that trying to push cosmetic sales up by more than 50 percent could cause customer dissatisfaction. She reminded herself that customers regarded the shop's beauty service highly and decided that any major growth in sales must come from that end of the business. Another operator and \$10,000 or more net profit after taxes might be feasible the year after next. She would keep the possibility in mind as she moved into next year.

Periodic Feedback And Control

A budget provides a tool for control. You start building this facility when your budget for 12 months is completed. Break it down into quarters. Such a breakdown allows you to check for any discrepancies that may not show up readily in a 12 month budget. When many items are added together, it is easy for an error to creep into the totals.

During the year, this quarterly division provides a handle for getting a hold on expenses and other activities.

For example, by looking at next quarter's budget you can anticipate peak periods and schedule stock and labor to handle peak sales volume. You can plan vacations, special promotions, and inventory taking for the slow periods.

A monthly or quarterly profit and loss statement allows you to keep the items in your budget in line with operations. Ask your accountant to show the actual and the planned revenues and expenses on the income statement so you can compare them. Thus, you can pinpoint and work on the problems that have occurred during the month or the quarter. Your objective is to guide your activities toward the most profitable type of operations.

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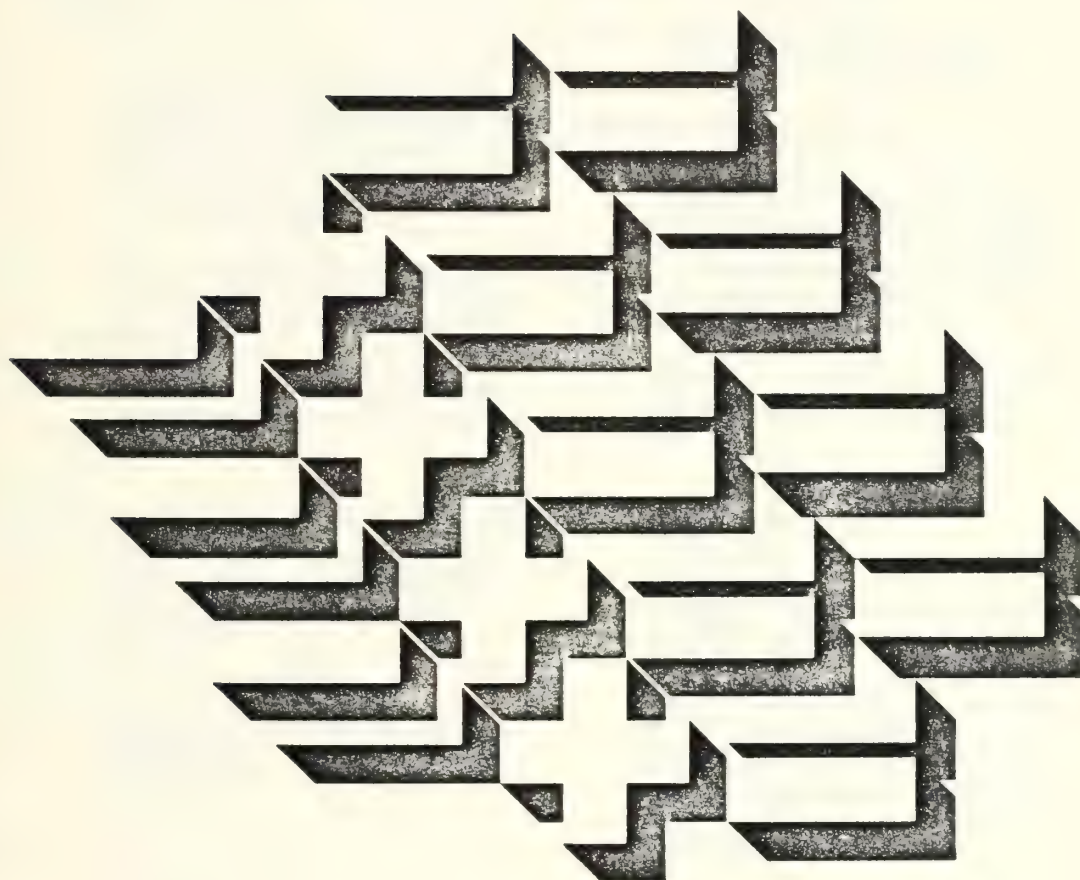
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SBA

Breakeven Analysis: A Decision-Making Tool

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Summary

Breakeven analysis is not a panacea. It's only one of the many tools available to the business decision maker. But it's a good tool with which to begin to approach decision problems.

Through first a simplified and then a detailed illustration, this Aid illustrates ways in which breakeven analysis can be applied to sales, profit, cost, and selling price problems and how it can be used to help make sound decisions for employing idle plant capacity, planning advertising, granting credit, and expanding production.

Part One

This illustration, as a conversation between a business counselor (C) and the owner-manager of a small store (O-M), discusses a simplified method of calculating the breakeven point for a small retail operation. While this method is not appropriate for manufacturers or large retailers, it provides a financial planning takeoff point for small stores.

O-M: I'm ready to expand. I've just had a great fourth quarter. I've got a chance to move to a larger store in a good location. I really think I'm on my way. Still, though, I don't want to take any unnecessary chances and lose what I've built up these first three years. What do you think I should do?

C: Let me answer your question with a question: What's your breakeven point now and what will it be if you assume the added expansion cost?

O-M: I'm not exactly sure, but after that last quarter I've got money in the bank and I'm paying all my bills on time.

What Bank Balances May Not Reveal

C: I'm glad to hear you're in good shape, but you can't make an intelligent expansion decision based on your bank balance at a given moment.

O-M: You ought to know, but why not?

C: Take your balance now, for example. It's a lot better than it was at the end of the first quarter, isn't it?

O-M: Sure, but the first quarter's usually slow. It's a fact of retail life.

C: And the fourth quarter is usually good, right?

O-M: Yes, that's a fact, too. But mine was outstanding—it was the best I've ever had.

C: I'm sure it was, but it can distort the picture. If you're relying on your bank balance for a feel for your breakeven point, you may just be guessing. Many things influence your bank balance that may not necessarily have a direct bearing on the breakeven point for you store. Seasonal fluctuation is just one of them.

O-M: There are more?

C: Sure, capital expenditures, extraordinary repairs, unusual outlays . . .

O-M: Okay, I get the point. My bank balance is meaningless. What about this breakeven thing?

What Breakeven Means

C: Breakeven is simply the point where costs equal what you're taking in—no profit, no loss—over a relevant sales range. To calculate this point you must work with only two factors, fixed expenses (like insurance or rent) and variable costs (like cost of goods or sales commissions).

O-M: I sure wish my costs were fixed. Everything goes up for me. My insurance, for example, looks like it's going up 25 percent over last year.

Fixed and Variable Costs

C: Well, actually "fixed costs" is something of a misnomer. Sure, rents, property taxes, insurance, even the salary you pay yourself may fluctuate—but on a yearly basis and not in relation to sales. For the purpose of break-even analysis every cost that doesn't vary in relation to sales is called "fixed." Your rent, for instance, stays the same for the year whether you sell \$250,000 or \$2.50 worth of goods, though we know some rents are tied to volume and vary. The same is usually true of utilities, depreciation, and similar expense items.

O-M: I see the point. Variable costs, then, are basically my cost of sales? I have to buy more if I sell more. If I paid commissions, I'd be paying more for more sales, and that sort of thing.

C: That's right. There can be other variable costs, but we're simplifying. In addition, you'll probably find costs that seem to be part variable, part fixed.

O-M: You mean they're "semi-variable" or "semi-fixed?"

C: Yes, they're costs that remain fixed up to a certain sales volume and then jump as that volume is exceeded. For example, office costs, or delivery expenses may fit in this category.

O-M: How do I treat them?

C: Use your good business judgment and split them between fixed and variable costs in what you consider a reasonable proportion. The important thing to hold in mind for simple breakeven analysis is to keep it simple. Oversimplicity is, of course, a drawback of this method. But simple break-even analysis really helps you to see your way into a planning problem and to establish its perimeters.

O-M: I like the idea of simplicity, but I don't think break-even sounds simple so far.

C: I think you'll see how easy it is if we work through an example. Here, take a look at this hypothetical income or profit and loss statement for the B-E Retail Store.

**B-E Retail Store
Income Statement
For the year ending December 31, 19____**

Item	Amount	Percent
Sales	\$60,000	100
Cost of Sales	42,000	70
Gross Profit	18,000	30

Expenses:		
Rent	\$ 1,800	3
Wages	12,600	21
Utilities	2,400	4
Insurance	1,200	2
Taxes	600	1
All Other	600	1
Total Expenses	19,200	32
Loss for Period	(\$ 1,200)	(2)

O-M: B-E doesn't seem to have broken even.

C: Correct. Let's find out what kind of sales volume B-E needed to break even in that year. For simplicity (there's that word again) let's consider cost of sales (which is 70 percent of sales) as the total variable costs and the expense items of \$19,200 as the fixed costs. We calculate the break-even point by using an algebraic formula.

O-M: A simple one, I hope.

C: Of course. It's just $S = F + V$, where:
 S = Sales at the break-even point,
 F = Fixed expenses, and
 V = Variable costs and expenses as a percent of sales.

O-M: All right, we know B-E's variable and fixed costs. How do we get sales?

C: Let's plug in the figures:
 $S = \$19,200 + .70S$
 $10S = \$192,000 + 7S$

O-M: Excuse me, $10S$?

C: I multiplied the whole equation by 10 to get rid of the decimal fraction, because I think it's easier to work with whole numbers. Anyway, we get:
 $10S - 7S = \$192,000$
 $3S = \$192,000$
 $S = \$64,000$

O-M: B-E needed \$64,000 total sales to break even? Anything less, they'd have a loss; anything more they'd make a profit?

C: You've got it. Let's check it, though, just to confirm it:

Sales	\$64,000
Less Cost of Sales	-\$44,800 (70% of sales)
Gross Profit	\$19,200
Less Expenses	-\$19,200
Profit or Loss	\$0

O-M: Okay, so B-E has broken even. But what about my problem?

Break-even Analysis for Planning

C: Break-even analysis is just what you need. It's primarily a planning tool. I've looked at your Income Statement and divided it into fixed and variable costs. As I see it, your cost of sales, which we'll consider as your total variable costs, comes to about 60 percent of sales. Your fixed expenses ran about \$60,000. So for last year:

$$S = \$60,000 + .60S$$

$$10S = \$600,000 + 6S$$

$$4S = \$600,000$$

$$S = \$150,000$$

You had to sell only \$150,000 worth of merchandise to break even.

O-M: As you can see, I sold \$200,000 worth, but I didn't make a \$50,000 profit.

C: Right, you made a \$20,000 profit just as the bottom line indicates. Remember, you still had those variable costs on sales even after all of your fixed expenses were covered at the \$150,000 level.

O-M: Oh, I see, it's like this:

$$S = F + V + \text{Profit}$$

$$S = \$60,000 + .60S + \$20,000$$

$$10S = \$600,000 + 6S + \$200,000$$

$$4S = \$800,000$$

$$S = \$200,000$$

C: Now you've got it. Let's consider your expansion question. How much will your rent increase?

Using Break-even Analysis to Examine Expansion Feasibility

O-M: It would be about \$5,000 more. I figure the utilities for the larger space will be \$2,000 more than I paid last years. Taxes, the "fixed" ones, I expect to run about \$1,000 more and my insurance will increase about \$500. I also think I may need to hire another sales person.

C: Let's say you do. What do you plan to pay?

O-M: I'd pay an experienced sales clerk about \$9,000. I'm toying with the idea of instituting a 2 percent commission on sales as an incentive, too.

C: All right. We know it's not as simple as we'll lay it out, but I think the analysis will give you an idea of whether or not to explore the expansion idea more carefully and in greater detail.

O-M: Fine.

C: Your fixed expenses will rise by \$17,500, if you include hiring another employee. That brings them to \$77,500, assuming no other increases from last year's \$60,000. For simplicity's sake let's assume your cost of sales (your variable costs) will increase only by the 2 percent commission. That means 62 percent of sales for variable costs. So:

$$S = \$77,500 + .62S$$

$$100S = \$7,774,000 + 62S \text{ (multiplied by 100 to eliminate fraction)}$$

$$38S = \$7,775,000$$

$$S = \$205,000 \text{ (approximately)}$$

O-M: Only \$5,000 more than I did last year? I can do that easily.

C: And be \$20,000 in profits worse off than last year. Let's put last year's \$20,000 profit in—in an expansion you still might want to do at least as well:

$$S = \$77,500 + .62S + \$20,000$$

$$100S = \$7,750,000 + 62S + \$2,000,000$$

$$38S = \$9,750,000$$

$$S = \$257,000 \text{ (approximately)}$$

O-M: Hm, that's approximately a 25 percent sales increase just to make the same profit as last year.

Business Judgment Still Necessary

C: Do you think you can boost sales by that much? Perhaps you see long range benefits from expansion that justify sacrificing some profit for the short run.

O-M: I'm not sure. I'll have to give it more thought, look at the trends in my business and in this area. My pricing policy may need adjustment. Maybe I can cut some costs. But now at least I've got a starting point, a dollar figure I can work with and from. Most importantly of all, I have a technique to help me attack my problem and help point me toward a rational decision.

C: That's what breakeven analysis is all about.

Part Two

Breakeven analysis can be more than a simple tool. It can be an approach for dealing intelligently with uncertainty. There are always difficulties in estimating uncertain variables such as demand, but by specifying the levels of other variables like costs or profit that affect the income of a firm, a required—or minimum—level can be found for the unknown quantity. Any problem requiring income estimation can be set up so that the most difficult variable to estimate is isolated for solution.

Imagine a firm, the Acme Company. Acme has a vacant plant equipped sufficiently to produce a number of new products. Fixed costs for this facility are \$250,000. Acme is looking at a potential new product for production in this plant. The product, an electric fork, will sell for \$10 apiece and has variable cost for materials, labor, overhead, and other items of \$7.50 per unit.

At present management feels certain that the market for this product is 2 million units per year. The physical capacity of the plant is 15,000 units per month or 180,000 per year.

Simple Breakeven Analysis

Should Acme make electric forks in its vacant plant? To begin to answer we need to find the contribution margin (CM) for the product. Contribution margin is simply what's left of revenue to cover fixed costs and profits after direct out-of-pocket (i.e. variable) costs have been subtracted; that is:

$$CM = \text{Revenue} - \text{Variable Costs (VC)}$$

When you subtract fixed costs (FC) from the contribution margin, you get earnings (before interest and taxes). You can then calculate the breakeven level by dividing fixed costs by CM. If CM is expressed on a per unit basis, the breakeven volume will be expressed in units. If it's expressed as a percent of revenue, the breakeven volume will be in dollars.

Let's look at Acme's electric fork project to see how this works.

Contribution on a Per Unit Basis

$$\begin{aligned} CM &= \text{Revenue (Price)} - \text{Variable Cost (VC)} \\ &= \$10 - \$7.50 \\ &= \$2.50 \end{aligned}$$

$$\begin{aligned} \text{Breakeven volume} &= \frac{\text{Fixed Costs (FC)}}{CM} \\ &= \frac{\$250,000}{\$2.50} \\ &= 100,000 \text{ units} \end{aligned}$$

Contribution as a Percent of Revenue

$$\begin{aligned} CM \% &= \frac{\text{Price} - VC}{\text{Price}} \\ &= \frac{\$10 - \$7.50}{\$10} \\ &= \frac{\$2.50}{\$10} \\ &= 25\% \end{aligned}$$

$$\begin{aligned} BE &= \frac{FC}{CM \%} \\ &= \frac{\$250,000}{25\%} \\ &= \frac{\$250,000}{.25} \\ &= \$1,000,000 \end{aligned}$$

Note that you can get the breakeven dollar total by multiplying the breakeven volume in units by the selling price or the number of units by dividing total revenue dollars at breakeven by price.

What's the answer to Acme's question? Well, the simple answer is that it should go ahead with the project. To breakeven they need to capture only 100,000 units worth or 5% of the estimated market of 2 million units per year. Second, they'll be operating well under the plant's physical capacity of 180,000 units per year at breakeven. Acme ought to be able to make a good profit using the vacant facility, if they can capture more than 5% of the market. With production and sales at capacity it looks like they'd make a profit of \$200,000 before taxes ($80,000 \text{ units} \times \$2.50 = \$200,000$), since all fixed costs will be covered at the 100,000 unit level.

Unfortunately, this is the simple answer. There are some difficulties with this easy as pie approach to Acme's product question.

Some Shortcomings of Breakeven Analysis

The major problem is that no project really exists in isolation. There are alternative uses for the firm's funds in every case. For example, in Acme's case the vacant plant could be leased to another company for some return. It could also be used for another product. We must, therefore, always consider not only the value of an individual project, but how it compares to other uses of the funds and facilities.

Nor does breakeven analysis permit proper examination of cash flows. It's generally accepted in basic financial theory that the appropriate way to make investment or capital decisions is to consider the value of a proposed project's anticipated cash flows. If the discounted value of the cash flows exceeds the required investment outlay in cash, then the project is acceptable.

There are other objections. Breakeven analysis makes many restrictive assumptions about cost-revenue relationships; in normal use it's basically a negative technique, defining constraints rather than looking at benefits; and it's essentially a static tool for analyzing a single period. What all this theory boils down to is that breakeven analysis is too simplistic a technique to be used to make final investment decisions.

You might well ask then: If that's true, what is breakeven analysis good for?

Some Basic Uses for Breakeven

1. It's a cheap screening device. Discounted cash flow techniques require large amounts of expensive-to-get

data. Breakeven can tell you whether or not it's worthwhile to do more intensive (and costly) analysis.

2. It provides a handle for designing product specifications. Each design has implications for cost. Costs obviously affect price and marketing feasibility. Breakeven permits comparison of possible designs before the specifications are frozen.

For example, in many small businesses a new product with an uncertain volume is often more feasible if it's made with temporary hand tools and jigs rather than with expensive production tooling. The first method typically has higher variable costs, but lower fixed costs. This often results in a lower breakeven for the project — and lower risks and potential profits. The more automated approach, on the other hand, raises the breakeven, but also raises the risks and profit potential for the company. Breakeven lets you examine these trade-offs.

3. It serves as a substitute for estimating an unknown factor in making project decisions. In deciding whether to go ahead on a project or to skip it, there are always variables to be considered: demand, costs, price, and miscellaneous factors. When most expenses can be determined, only two missing variables remain, profit (or cash flow) and demand. Demand is usually tougher to estimate. By deciding that profit must at least be zero (the breakdown point), you can then fairly simply find the demand you must have to make the project a reasonable undertaking.

You still have to compare the demand figure at breakeven with the market share you think you can capture to judge the worthiness of the project, and you'll have to use your business sense here. But breakeven gives you a way to attack uncertainty, to get onto the target if not into the bull's-eye. Let's look at some examples.

Breakeven Applied to Uncertainty

Profit Margin. The typical breakeven approach develops the volume needed for producing no profit. What if you think you're in business to make a profit?

Using the Acme example, let's say we'd like a 10% profit margin on the project. The original contribution margin for the electric fork was 25%, but that was at zero profit. In effect, our 10% profit acts like a variable cost, so we must adjust CM% accordingly: $25\% - 10\% = 15\%$. Now we can calculate breakeven (BE) using the percent of revenue approach:

$$\begin{aligned}
 BE &= \frac{FC}{CM\%} \\
 &= \frac{\$250,000}{15\%} \\
 &= \$1,666,667 \text{ (or 166,667 units at \$10 each)}
 \end{aligned}$$

This is still below plant capacity. Acme can now look at the market and make a judgment on the probability of selling that many electric forks.

Dollar Profit. What if Acme wants a fixed dollar profit of \$150,000? Here we treat the profit as a fixed cost, so we've got to add it to the fixed cost established for the plant: \$150,000 + \$250,000 = \$400,000. We can now calculate the breakeven volume using the per unit approach:

$$\begin{aligned}
 BE &= \frac{FC}{CM} \\
 &= \frac{\$400,000}{(\$10 - \$7.50)} \\
 &= \frac{\$400,000}{\$2.50} \\
 &= 160,000 \text{ units (or \$1,600,000)}
 \end{aligned}$$

Again this is below capacity. And again somebody has to make a judgment on the likelihood of selling this many units.

Maximum Out-Of-Pocket Cost. Suppose Acme's management can forecast sales with a degree of assurance. They judge that they can sell 150,000 of the new electric forks each year. What out-of-pocket expenses can they incur and still breakeven? First, We've got to change the breakeven formula around a little:

$$\begin{aligned}
 BE_{VOL} &= \frac{FC}{CM} \\
 BE_{VOL} \times CM &= FC \\
 CM &= \frac{FC}{BE_{VOL}}
 \end{aligned}$$

Now we can find the CM for these circumstances:

$$\begin{aligned}
 CM &= \frac{\$250,000}{150,000 \text{ units}} \\
 &= \$1.67
 \end{aligned}$$

Subtracting the CM of \$1.67 from the selling price of \$10, we get \$8.33, the variable cost Acme can incur on each unit and still break even. Similarly, if a \$200,000 profit is desired at the proposed volume, we find that the contribution margin equals \$450,000 divided by

150,000 units or \$3. At this level of desired profit, variable costs must be held to \$7/unit.

This example shows how to use breakeven analysis to help set product specifications. By isolating the *allowed* cost structure, the right product structure restrictions can be determined and the product engineered to the cost requirements or abandoned.

Selling Price. Assume again that variable costs for producing the fork are \$7.50/unit and there are \$250,000 in fixed costs. Add to those data the known sales volume of 150,000 forks and a desire to make a profit of \$100,000 per year. What's the selling price?

$$\begin{aligned}
 CM &= \frac{FC}{BE_{VOL}} \\
 &= \frac{\$250,000 + \$100,000}{150,000 \text{ units}} \\
 &= \frac{\$350,000}{150,000} \\
 &= \$2.33
 \end{aligned}$$

The price must equal variable cost plus fixed cost: \$7.50 + \$2.33 = \$9.83. This \$9.83 selling price can now be compared to the existing market price to determine if the Acme fork has a good chance of selling or if the specifications must be altered to get the price down. This approach works well for bidding.

Advertising Decisions. Advertising is essentially a fixed cost. Any added fixed costs raise a firm's breakeven point and thus require added revenue (or lowered variable costs) to pay for them. The money for fixed costs comes from the contribution margin.

In the Acme electric fork example CM % is 25%. Thus, four additional dollars of revenue are required to cover each additional dollar of fixed cost: \$1 - 25% = \$4. (If the Acme project's CM % were 40%, it would take \$2.50 to cover each additional fixed cost dollar, \$10 if the CM % were 10%.)

So, if Acme is considering a \$2500 expenditure for an ad, it knows it will need 4 × \$2500 or \$10,000 in extra sales just to cover the cost of the ad. Here management isn't trying to guess how much in sales they'll get from the ad. Instead, they know how much they must get to be only as well off as they would be without any advertising. This approach provides a built-in standard for judging the results of advertising. If after an appropriate period added sales aren't enough to justify the cost of the ad, it can be abandoned as an approach.

Granting Credit. Suppose Acme is examining a prospective electric fork distributor as a potential credit customer. The distributor expects to buy 500 units per month from Acme. Terms will be net 30 days and it's conservatively estimated the account will turn over eight times per year. What should Acme do?

First of all, when a new account is taken on, the potential loss for the supplier of credit is the variable cost of the balance carried. In addition, the creditor incurs the costs of carrying and administering the account. Assume in this case that carrying costs amount to 10 % of the average balance and administrative costs are fixed at \$500 per year for the new account. The average expected balance is found by taking total sales and dividing by turnover.

$$\begin{aligned} \text{Average expected balance} &= \frac{500 \text{ units} \times \$10 \text{ per unit} \times 12 \text{ months}}{8 \text{ times}} \\ &= \frac{\$60,000}{8} \\ &= \$7500 \end{aligned}$$

Fixed costs for taking on this account are, therefore, 10 % of this average balance plus the administrative cost: $FC = (\$7500 \times 10\%) + \$500 = \$1250$.

To these fixed costs must be added the variable cost of the average balance, 75 % of \$7500 in this instance. (That's the \$7.50/unit variable cost divided by the \$10 price—Acme incurs the \$2.50/unit fixed cost up to breakeven regardless of granting credit or, indeed, selling forks.) So, the potential total cost, including possible loss of the outstanding balance, is:

$$\begin{aligned} \text{Total cost} &= (\$7500 \times 75\%) + \$1250 \\ &= \$5625 + \$1250 \\ &= \$6875 \end{aligned}$$

Taking into account that with the fork's CM % of 25 % , \$4 of revenue is needed to cover \$1 of additional cost:

$$\begin{aligned} \text{BE}_{\text{account}} &= \$6875 \times 4 \\ &= \$27,500 \end{aligned}$$

Thus, Acme needs \$27,500 in sales to the distributor to insure that the account at least breaks even. Since expected yearly sales are \$60,000, the account should hit that volume in under six months. Again, we've reached the point that managerial judgment must be brought into play.

This is not the most sophisticated approach to credit granting ever proposed, but it does show the expected exposure to loss the account would add. The smaller the contribution margin and the slower the turnover, the higher the risks will be. Knowing the financial circumstances of the firm seeking credit, management can usually judge easily whether or not that firm can pay its bills for six months or whatever the breakeven period turns out to be. This is the creative treatment of risk analysis.

Labor Costs. So far the examples have been simple and straightforward. Business life, alas, isn't. In the traditional version of breakeven analysis variable costs generally include items such as material, labor, and overhead. In reality, however, some of these costs may not be variable over the operating range of the company.

Here are the figures from the original Acme example in more detailed form:

Product Price	\$10.00/unit
Variable Costs	\$ 7.50/unit
From	
Material	\$4.50/unit
Overhead & Other	\$ 50/unit
Labor	\$2.50/unit
Fixed Costs	\$250,000/year

The labor cost is based on five crews of five people each at \$10,000 per person per year with each crew producing 20,000 forks annually.

For simplicity we assumed originally that at any level of production total variable costs were \$7.50/unit. People, however, cannot in reality be shifted that smoothly. Thus, in a narrow range of production some labor costs become fixed in effect. This fact can change the breakeven point of the firm. It also affects the contribution margin and pricing, promotion, and similar decisions.

Using the traditional approach it looked as though the breakeven point was 100,000 units. It also appeared that, if another 10,000 units were made and sold, Acme would make a profit of \$25,000 (10,000 unit \times \$2.50 contribution margin per unit). In reality, however, the original breakeven represents the effective capacity of the firm. An extra 10,000 units could be produced only if a new crew is put on at a cost of \$50,000. At the 110,000 unit level we actually find:

Sales	110,000 units @ \$10/unit	\$1,100,000
Less	Material @ \$4.50/unit	495,000
	Overhead @ \$ 50/unit	55,000
	Labor 6 crews	300,000
	Fixed Costs	250,000
	Profit	0

The firm is merely breaking even.

Here, labor has essentially become a fixed cost; overhead and material costs are the only true variable expenses. The CM for the product has changed:

$$\begin{aligned}\text{CM} &= \text{Price} - \text{VC} \\ &= \$10 - (\$4.50 + \$5.00) \\ &= \$5.00/\text{unit (or 50 \%)}\end{aligned}$$

Fixed costs are the facility costs plus the labor costs for six crews: $\text{FC} = \$250,000 + (6 \times \$50,000) = \$550,000$. So now,

$$\begin{aligned}\text{BE}_{\text{VOL}} &= \frac{\text{FC}}{\text{CM}} \\ &= \frac{\$550,000}{\$5.50} \\ &= 110,000 \text{ units (or \$1,100,000)}\end{aligned}$$

Where does that get us? In general, it tells us that the important thing to keep in mind when using breakeven analysis is the true nature of the firm's cost structure. Some firms have a flexible labor force and standard analysis works well.

In many service businesses, however, such as restaurants where idle labor cannot be manipulated smoothly, management must treat such costs differently. In many small businesses certain skilled workers can't be laid off without being lost to competitors. A small printing company with a good press operator or typesetter, for example, can't afford to lay off these key people when business is slow without the risk of losing them permanently. The key to success is to increase revenue to help cover their costs. Pricing these necessary extra sales and making sound advertising and promotion decisions can be greatly aided by using the variations of breakeven analysis discussed.

Breakeven analysis requires *above all* realistic definition of costs, both in amount and type. For many small businesses nearly all costs are fixed. Key people can become fixed costs. To deal with slow periods owner-managers must try to get new business by pricing favorably—marginally. Their products can be sold at a small margin over variable costs, offsetting some fixed costs.

If Acme in the example above were to produce the 10,000 additional forks for which it has available labor capacity and sell them at something above the \$5/unit variable costs, it would make a profit. As long as new business is added to an existing vacancy in capacity, any contribution to covering fixed costs will increase profits or at least reduce losses.

APPENDIX H

Section E

COUNSELLING NOTES

Small Business Administration COUNSELING NOTES	No. 108
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Small Volume Home Building

(By David J. Rollison, Director of Business Management,
National Association of Home Builders)

The home building business in the past has offered an attractive opportunity for small businesspeople. Over half of the new single-family homes provided in the United States have been constructed by small volume builders. The small volume builders constructs an average of 20 homes a year, many are built on site for specific buyers. Others are constructed, or "spec" built in anticipation of a buyer.

Traditionally, small builders learn the business from experience in the building and construction trades. However, in today's housing industry abilities beyond trade skills are needed. Marketing, finance, land acquisition, negotiation, work coordination (including planning, forecasting, and sub-contracting), accounting, and other skills are required. It is also important that builders keep up with the latest industry developments in cost saving devices, federal housing programs, and local construction regulations. Builders must be familiar with interest rate trends and mortgage market developments. The small builder must be aware of all national forces that eventually will effect local housing markets.

There are basically two types of single-family builders, the custom builder and the speculative or tract builder. Basically both operate out of homes or small offices. The custom builder obtains a contract to build a house for a fixed fee or percentage over cost. The builder may use subcontractors on every phase of construction.

The "spec" builder who builds in hope of finding a buyer should plan to have enough working capital to live on for two years. The "spec" builder will need down payment for land, which usually cost 20 percent of the house sales price. Builder will need to arrange for a construction loan in order to build the "spec" house. A good credit rating is essential because builders are personally liable on all loans and notes. Ideally, the home builder should make a net profit before taxes of 10 percent.

Equipment needs vary with the scale of a builder's operation. Most builders need a pick-up truck, electric generator, storage space, possibly a heating device, and eventually an office and associated equipment.

Small businesspeople have been the backbone of the single-family home building industry. In recent years, however, changes such as rising materials costs, higher interest rates, rising land prices, and inadequate cash flow have reshaped those elements that in the past brought builders success.

As a result of these changes, the successful builder must conduct some form of market research before beginning a new project. Basically, market research is defining the housing needs of the region the builder services (or market) in terms of price and specified types of housing people desire. Typical marketing research endeavors would include analyzing the reasons for the success or failure of a competitor's recent project, researching the age and income distributions of the population in an area and from it predicting future trends. For example: If an increasing number of young married couples are moving into a community, the housing needs of the community will rise. A builder might then try to learn the income distribution of this group. This data will then give a contractor a clue to the specific type of housing and price range that will respond to the needs of these young couples. When the builder feels a survey has correctly been completed, plans can then be developed for both the types of housing to be constructed and also the sales promotion activities to follow.

Builders may be required to be licensed and to follow local building codes. Specific information in these areas generally can be obtained from local authorities. The latest mortgage and Federal agency information is available from the National Association of Home Builders, Mortgage Bankers Association, Federal Home Loan Bank Board, and local savings and loan associations.

The sources of information shown below may be helpful to anyone planning to enter the small volume home building industry.

Federal Home Loan Bank Board
101 Indiana Avenue, N.W.
Washington, D.C. 20552

Mortgage Bankers Association of America
1125 15th Street, N.W.
Washington, D.C. 20005

National Association of Home Builders
15th and M Streets, N.W.
Washington, D.C. 20005

How to Start Your Own Small Business, Drake Publishers, Inc., New York, 1973.

Construction Company Organization and Management, George E. Deatherage, McGraw Hill, 1964.

"Business Plan for Small Construction Firms," Management Aid No. 221. Small Business Administration, U.S. Government Publications (Free)

"Starting and Managing a Small Business of Your Own," Starting and Managing Series No. 1:15:1, Small Business Administration, Superintendent of Documents, Washington, D.C. 20402.

Small Business Administration
Office of Management Information and Training

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Roofing Contractors

By Fred C. Good

National Roofing Contractors Association
Oak Park, Illinois

Roofing contracting is a part of the construction industry. The roofing contractor often acts as both a sub-contractor and as a direct or general contractor. In performing sub-contract work, the roofing contractor may be employed by a general contractor or a home remodeler and bid work to the general contractor. Essentially, work is performed for the general contractor. In the field of direct contracting, the roofing contractor may work directly for the building or home owner. In either case the owner of the business is involved in the construction process. The contractor must be prepared to estimate and bid for work; have labor available to perform the work; to be able to effectively purchase materials to be installed; and to see that the work is completed efficiently, according to specification, and within a prescribed period of time.

Long hours—often 12 to 14 a day—are common. A contractor takes great pride in work that is acceptable and feels a definite part of the community as he/she is a part of the construction process.

To be a successful small business person, it is important that the individual has some experience with the process of roof construction, including knowledge of the materials used, types of construction involved, management of labor, and coordination with other building trade contractors that may be involved in the process.

In the roofing/contracting business, there are firms that pursue only the large industrial/commercial type of construction. There are many smaller firms that pursue residential shingling and remodeling roofing types of work. The capital requirements of the person beginning in the roofing business will, of course, vary, depending on the type of work pursued. A person starting a small business will do some residential contracting and perhaps some maintenance and repair work on homes and smaller two, four and six-flat apartment buildings. Estimated capital requirements would be \$10,000 to \$20,000. Purchases would require at least one truck and some equipment for the handling of materials, including a hoist and trailer, a kettle and some brooms, shovels, and buckets. These can often be purchased second-hand

or, if purchased new, can be financed over a three-year period.

A suitable location from which to operate the business and some storage space for working materials and equipment will be required. For dealings with the supply houses, the small roofing contractor should have established a good credit rating, or have adequate cash on hand for materials until a good relationship with supplier is formed.

The small business owner will need to investigate the various legal and regulatory requirements necessary for business. Insurance is mandatory and bonding should be available for some work projects. Workers compensation insurance for the work force will be required and business licenses and permits, depending on the particular locality in which the work is being performed. There must be compliance with the Occupational Safety and Health Act (OSHA), and should the contractor perform any work involving the use of Federal funds, there has to be compliance with the equal employment and affirmative action programs. This of course will apply to contracting work done for all levels of Government, for instance a small repair on a local school or on a municipal building.

On the limited capital investment that has been proposed, the contractor should anticipate doing a volume of \$50,000 to \$60,000 annually in sales. This sales volume should guarantee a salary to the owner/manager of about 20 percent of annual sales and should allow a small return on capital investment. As business continues, contractor should plan to increase sales to a volume of \$100,000 to \$150,000 annually, which should increase the return on investment and allow purchase of additional equipment and additional sources of business.

One of the advantages of a profession in the roofing industry is the relative stability of the industry. There is always need for basic shelter and for roofing on all types of new construction. Additionally, there is always a need to repair and maintain existing structures. The roofing contracting business is an industry that can

survive periods of recession. The business is often thought to be seasonal. While it is true that outside work can only be done in suitable weather, inside repairs and estimating work can be carried on continuously.

For Further Information:

National Roofing Contractors Association
1515 North Harlem Avenue
Oak Park, Illinois 60302
Publications: *The Roofing Spec*;
Action Information (bulletin)

United Union of Roofing
Waterproofing and Allied Workers (RWA)
1125 17th Street, N.W.
Washington, D.C. 20036

Paint and Decorating Centers

(By Professor John E. Trotter, Concord College, Athens, W. Va., in consultation with the National Decorating Products Association, St. Louis, Mo.)

Paint and wallcovering stores have evolved into more than 14,000 Decorating Centers in the United States, many of which are a part of large corporation-owned chains. Despite the competition from large corporations, the independent decorating center has flourished over the past decade. The greatest strength of the independent decorating center is in small town and rural America, yet many have been highly successful in big cities. The key to this success is long hours and product knowledge.

Much of the independent decorating center's business results from the ability of the store personnel to counsel with their customers. It is important to know what type of paint should be used on what type surface, how the surface should be prepared before painting or hanging wallcoverings, what type adhesive is used with what type wallcovering, what type paint applicator should be used on various jobs, and so forth. Many store owners either attend or send employees to decorating and interior designer schools so that they can advise customers on the total decorating job. Unlike most retail stores, decorating centers have not gone to check-out counters because this destroys the personal relationship with customers.

Equipment Selection

Decorating Centers have broadened their product line by moving into such fields as art materials, wall decorations, floorcoverings, window treatments, picture frames, and spray equipment. Today, the average Decorating Center does approximately 75 percent of total sales in the paint and wallcoverings departments and 25 percent in other product lines. The growth trend in the "other product category" is still continuing, especially the window treatments department.

Capital Requirements and Operating Ratios

The investment required to open a Decorating Center will vary from one area of the country to another and from one part of town to another, depending upon the occupancy costs and salary rates. In addition to these expenses, store fixturing, signs and inventory stock represent an investment of \$50,000 to \$70,000. Many paint manufacturers, since theirs is the largest volume line in most stores, are willing to help with initial financing or to offer 60-90 day billing on the paint inventory. This is particularly true in the case of a decorating store manager with proven sales ability and knowledge.

Often a Decorating Center requires 9 to 15 months to reach the break-even point. Sales should reach \$150,000 by the end of the second year, and \$200,000 by the end of the third, with a net profit of about 15 percent before taxes. The general gross profit margin on decorating products is 40 percent before expenses. As a rule, one employee is required for each \$50,000 to \$60,000 in sales.

Store Operations and Marketing

The paint manufacturer can be of great help within the scope of operations and marketing. Many paint companies have a special department devoted entirely to site selection, store layout and design, and inventory selection. Other companies have salespeople or regional managers in these areas. Also, most paint manufacturers offer a co-op advertising program. This program will include payment of part of the advertising expenses, layout for newspaper advertising, radio commercials, and store display material.

All State and Federal regulations regarding the operation of a retail business apply.

Sales growth for Decorating Centers has been at the rate of 15 percent per year in recent years and this is expected to continue.

Information Sources

National Paint, Coatings Association
1500 Rhode Island Avenue, N.W.
Washington, DC 20005

National Decorating Products Association
9334 Dielman Industrial Drive
Saint Louis, Mo 63132

Wallcoverings Manufacturing Association
Wallcoverings Information Bureau
P.O. Box 359
Springfield, NJ 07081

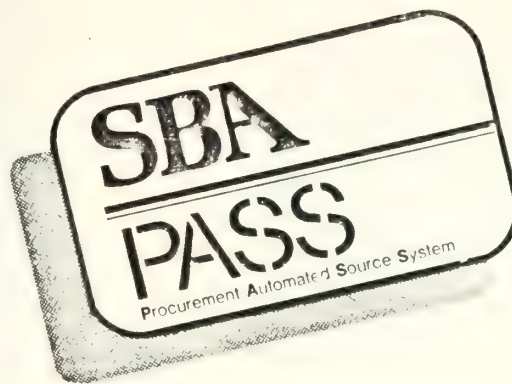
APPENDIX H

Section F

PROCUREMENT AUTOMATED SOURCE SYSTEM

(PASS)

U.S. Small Business Administration
Office of Procurement Assistance



For Buyers and Suppliers--

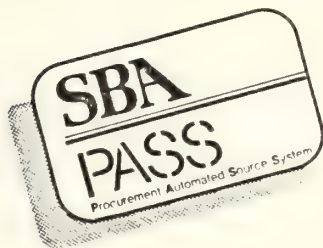
*Get the **PASS** to sales and
purchasing opportunities.*

What Is PASS?

Every work day, businesses and governments award contracts and subcontracts for supplies and services valued at millions of dollars. In 1977, U. S. Small Business Administration (SBA) established the Procurement Automated Source System (PASS) to assist small businesses in competing for these opportunities.

PASS is a national automated directory of small suppliers of goods and services. Presently, it lists profiles of almost 150,000 companies, including over 26,000 minority-owned and 27,000 women-owned firms.

PASS provides benefits to both buyers and suppliers. It enables procurement offices to quickly identify small companies meeting their procurement needs. At the same time, it provides small businesses with a valuable marketing avenue for entering the Federal marketplace or expanding their existing Federal contracts.



SUPPLIERS - Why List Your Company In PASS ?

By listing your firm in PASS, you can increase your marketing opportunities. PASS is actively used by purchasing officials from private industry and the public sector to find potential suppliers of goods and services. Although no one can guarantee new business, listing your firm in PASS is an effective addition to your regular marketing and sales efforts.

WHAT DOES IT COST?

Listing your company in PASS is free. Increasing the number of companies in the directory makes PASS more valuable to its users--and, ultimately, to you.

WHO CAN APPLY?

To qualify for PASS, your firm must be an established, independently-owned small business that is operated for profit in the United States.

HOW TO LIST YOUR COMPANY

To list your company's profile in PASS, obtain a PASS COMPANY PROFILE form from your nearest local SBA office or by writing to the address shown below. Fill out the form as completely as possible. Your company will be listed under the goods, services, special capabilities, and general categories that you write on the form. Then return the postage-paid form to:

U.S. Small Business Administration
PASS Program--Room 600
1441 L Street, N. W.
Washington, D. C. 20416

BUYERS - Why Use PASS?

PASS saves you time and money. Below are just a few of the system's features:

PASS is FAST

Why waste frustrating hours leafing through phone books, old catalogues, files, and scraps of paper? Simply enter your purchasing criteria to the computer, and get a list of profiles for small businesses that provide the needed goods or services.

PASS is FLEXIBLE

If the listing is too long or too short, simply alter the criteria for a new list of business profiles. PASS offers a wide variety of search criteria, such as the company's product or service, geographic location, labor surplus area, and type of business (e.g., minority-owned). The system will also allow searches by SIC Codes and Federal Supply Codes. Information about a firm's Quality Assurance program and DUNS number will also be available.

PASS is COMPREHENSIVE

PASS is the most comprehensive data base of small business suppliers now available. Presently, PASS lists profiles for almost 150,000 companies and more businesses are continually being added. Up to 200 profiles can be printed at once.

PASS is ACCURATE

Maintaining an accurate data base is a top priority for the PASS system. Annually, each business listed in PASS is sent an update form. If no response is received, the business is dropped from the system.

PASS is EASY to LEARN and USE

Learning and using PASS is simple and straightforward. Periodically, SBA schedules special training support around the country. However, for people who have a basic familiarity with personal computers, SBA provides a self-instructional training package, including a training diskette and a users manual. In most cases, this is all that is necessary to learn PASS quickly.

PASS includes technical SUPPORT

SBA's PASS contractor provides a free HOTLINE to assist you in learning and using PASS. This service is available during business hours throughout the country and provides quick support for PASS users.

PASS is EASY to INSTALL

PASS can be easily installed on almost any computer capable of connection to a 300-1200 baud modem. This computer, or terminal, with a modem and a good quality telephone line is required for direct access. Chances are the equipment you already have will work. If you have questions, the PASS contractor will provide the necessary technical assistance.

PASS is REASONABLY PRICED

The cost of installation varies with the type of terminal/computer you use, the features you require, etc. The PASS contractor will advise you. The charge for using PASS, which is determined by the amount of "on-line" use, is reasonable. There are no registration fees or minimum use requirements. Bills are issued quarterly.

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